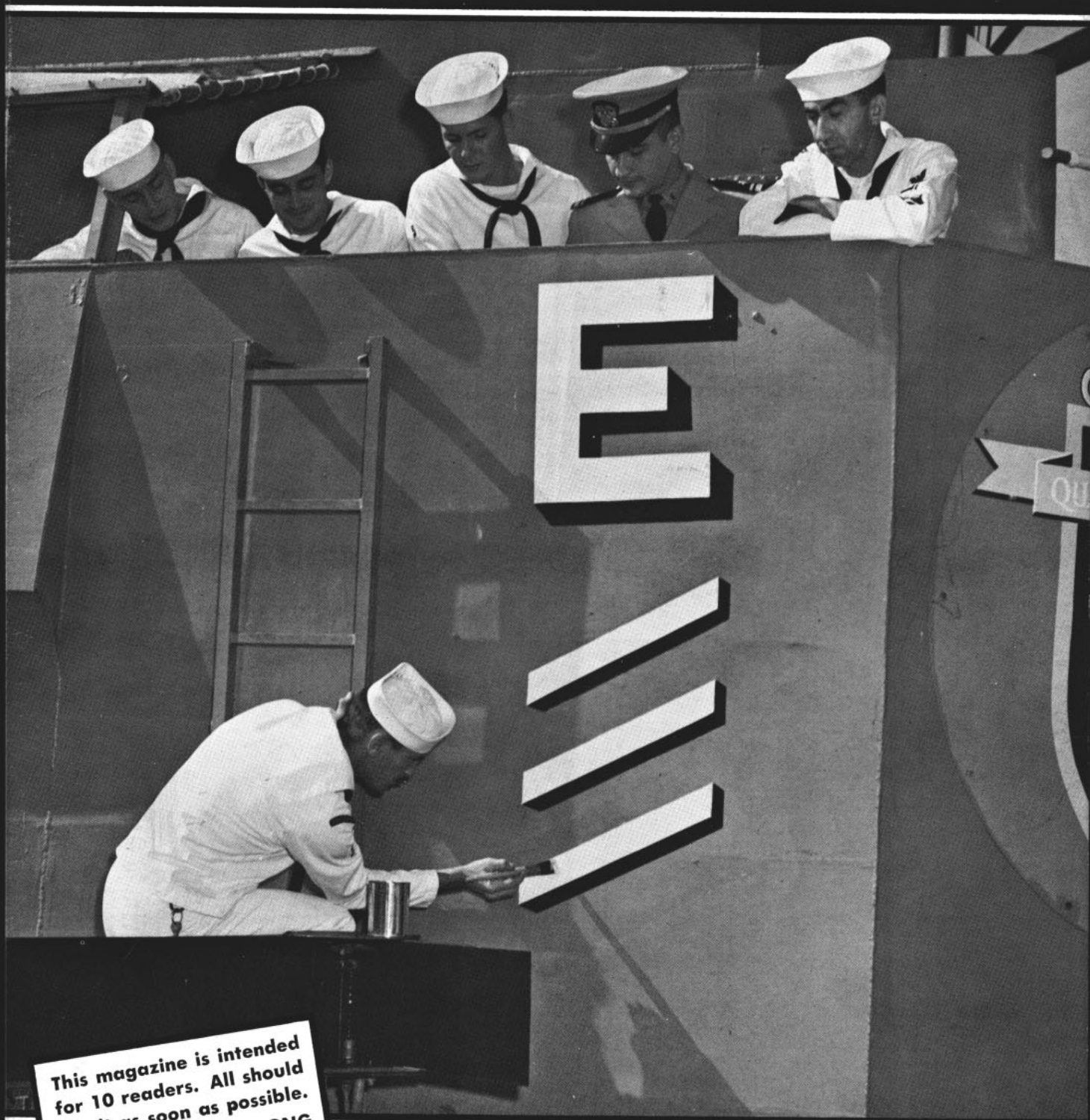


# ALL HANDS



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NOVEMBER 1962





# ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

NOVEMBER 1962 Nav-Pers-O NUMBER 550

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• **FRONT COVER: FOUR FOR FOUR** — Crew members watch J. R. Baker, DC1, USN, touch up another hashmark under the Battle Efficiency 'E' of USS Courtney (DE 1021), marking the fourth consecutive year their ship has captured the award.

• **AT LEFT: SCENIC ROUTE** — Second Fleet flagship USS Newport News (CA 148) cruises through the German countryside as she transits the Kiel Canal on way to England.

• **CREDIT:** All photographs published in ALL HANDS are official Department of Defense photos unless otherwise designated.



**BEACH PARTY** — Jeeps and heavy equipment of SEATO task force hit the beach during exercise Tulungan.

# Amphibious War Game Is

**V**ISUALIZE this scene.

A guerrilla force from Lusob has infiltrated Tahimik, a Southeast Asia country. Within a relatively short time these guerrilla troops have not only seized control of a central area of this small country, but have openly challenged the military forces.

The government of Tahimik has asked SEATO (The Southeast Asia Treaty Organization) for help and SEATO has responded by ordering a combined expeditionary force to make an amphibious landing on the coast of Tahimik in the area controlled by the guerrilla force from Lusob. The SEATO force has been ordered to establish a beachhead in Tahimik and to help restore control over that area to the government of Tahimik.

This was the conjured situation for SEATO's exercise Tulungan which took place earlier this year in the Pacific. The coastal area of western Mindoro, Philippines, was the objective area of Tahimik.

The mission of Tulungan, SEATO's first exercise in 1962, was to develop mutual confidence among the participating forces from the Republic of the Philippines, the United States and Australia and to acquaint themselves with each other's equipment, tactics and techniques. It also fur-

thered good-will and fostered new friendships among the troops of the member nations. This also increased their ability to work together easily as a unified defense team.

The guerrilla force was the first group stationed. These troops were members of the Third Battalion, U. S. Fourth Marines, from Hawaii and the First Marine Company, Philippine Marine Battalion, from Manila, P.I.

They moved onto the island of Mindoro with 350 tons of supplies and equipment, plus 50 vehicles and 25 trailer-type carriers, three weeks before the amphibious phase of the exercise was scheduled. The group set up two separate camps, one three miles inland from the beach near San Jose and the other some 14 miles north of Santa Cruz. They built defenses, set ambushes, laid mine fields and constructed obstacles.

**A** WEEK AFTER the aggressor force had been put ashore, the amphibious force ships from the U. S. Seventh Fleet began to load 15,000 troops and their equipment at Buckner Bay, Okinawa, for the upcoming battle. Five days later the ships slipped out of Buckner Bay en route for Tahimik.

Ships of the Philippine navy loaded

troops at Manila Bay and then rendezvoused with U. S. Seventh Fleet ships in the South China Sea. The combined force then continued toward the exercise area.

The ships participated in a live firing exercise en route to Mindoro and the troops took part in a dress rehearsal of the amphibious phase of the upcoming landing at Bataan. It was a turn-away simulated landing which included the assault helicopters. This rehearsal also provided a final check for anti-air, air support and naval gunfire.

While all these preparations were being made for the landing, intelligence and reconnaissance officials were busy collecting information about the capabilities of the 1500-man guerrilla force in Tahimik.

**I**NTELLIGENCE WORK is interesting and necessary, but for one U. S. Navy photographer's mate, it was no fun, mainly because he wasn't playing the game.

The Navy photo mate, Patrick D. Hinman, PH3, USN, was assigned to take pictures of the battles in Tahimik. He had his camera, was well decorated with press armbands and had enough identification to satisfy anyone—he thought.

Hinman began his assignment by





LOOK OUT — Philippine and U.S. troops make amphibious landing. Below: Marines land via copter and line.

# Not Play

arriving in the country by a plane which made an unscheduled landing at Mamburao airfield. As soon as he debarked, his plane took off again. Hinman immediately headed toward a nearby grass hut to begin his photo coverage of the operation.

Before he had gone far he was surrounded by three men who put him under arrest. The next thing he knew he had the lead in a one-act interrogation session.

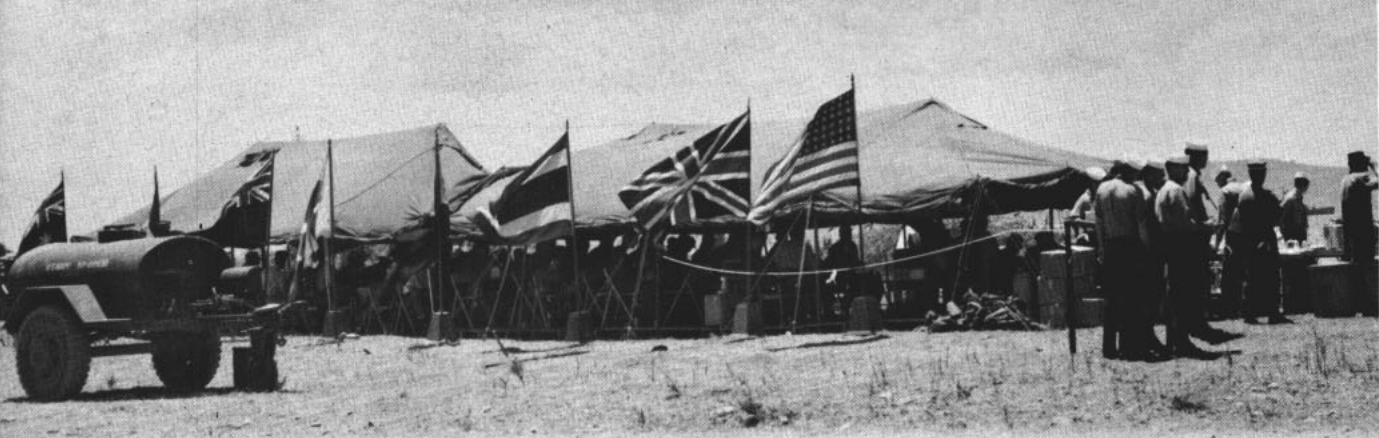
He explained that he was there only to take official photographs of the operation. What Hinman didn't know, however, was that two Navy-men with Underwater Demolition Team 12 had told that same story a few days earlier and got away with it for a short time. They, too, wore dress Navy uniform and had press armbands and a camera. They were first allowed to pass, but were later arrested and identified as members of an intelligence team.

Hinman somehow talked his way out of trouble. Because of the long delay, and therefore loss of many photographs, Hinman asked for a safe pass. This would have let him get a few pictures without further interruptions, and would also have given him something besides unexposed film to present to his chief when he returned. Hinman's request



THE AGGRESSORS, played by U.S. Marines, come ashore for the exercise.





LOOK WHO'S LOOKING — SEATO observers watch the amphib operation. Below: LST lands artillery on the beach.



IN TRAINING — South Vietnamese sailors learn to man shipboard guns.



was denied. Perhaps his interrogators were not impressed with the photographer's story after all.

**O**N D-DAY THOUSANDS of SEATO troops swarmed ashore to rid Tahimik of the guerrilla force which had been infiltrating the fictitious country.

Soldiers of the Philippine army's First Battalion Combat Team hit Blue beach from landing craft while U. S. Leathernecks from the Second Battalion, Ninth Marines, landed inland behind San Jose where they had been transported by helicopters.

Simultaneously, wave after wave of men of the Third Marines landed across Red beaches 50 miles to the north of San Jose in the Santa Cruz area.

Aircraft from the Philippine air force, First Marine Air Wing and Royal Australian Air Force planes strafed suspected enemy shore positions and shore lines just ahead of the landing troops.

Veterans of World War II or Korea found today's warfare methods somewhat different from those they had seen in past landings. As the men landed on the beaches of Mindoro in the central Philippine Islands, they found almost no resistance. The advancing troops could have almost walked ashore upright from their landing craft.

Instead of waiting on the beach, the guerrilla troops were entrenched further inland.

About the only obstacles in the beach areas were charges of explosives that had been buried under the sand to simulate enemy fire. Only a few shots were exchanged in the beach area.

While the landing craft and other amphibious vehicles landed on the beach, U. S. Marines were being heli-lifted into selected landing zones



in an area northwest of San Jose.

The first objective of the invading troops was to secure the San Jose airfield. This was done within an hour after the assault. Men and equipment from the First Marine Aircraft Wing then began to set up an aircraft control tower and landing aids. Later that day, the field was ready and the U. S. Air Force flew in an additional battalion landing team of U. S. Marines from Okinawa to reinforce the troops that had landed over the beaches.

During the battle, the guerrilla troops engaged the SEATO forces on the beaches, in creek beds, in the mountains, at rivers, as well as in jungle terrain, marshlands and desert areas. They attacked from ambush, used hit and run methods, sneak attacks and many other guerrilla tactics.

More than 37,000 men from the United States, Republic of the Philippines and Australia, and some 70 ships and 400 aircraft participated in Tulungan.

Needless to say, the SEATO forces won the simulated battle, but not without a struggle from the 1500-man guerrilla force.

For SEATO, this was exercise number 20. During these exercises, SEATO has practiced many aspects of specialized military strategies that



**GREETINGS** — Destroyermen of USS Lyman K. Swenson (DD 729) meet Australian carrier with cake and humor at sea during SEATO exercise.

are essential to the defense of that area of the world.

These exercises started as simple demonstrations of coordinated movement maneuvers and have gradually developed into complicated operations such as Tulungan. Each exercise has gone a step further and has

involved larger forces and more complex planning. Last year, for instance, exercise Pony Express practiced amphibious assault landings, and established a beachhead. This year's Tulungan went one step further and simulated fighting against guerrilla troops.

## **Cooperation Helps SEATO Protect Its Members From Attack**

The Southeast Asia Treaty Organization is an alliance between Australia, New Zealand, Philippines, United Kingdom, France, Pakistan, Thailand and the United States, which was created by a treaty signed in Manila, P.I., on 8 Sep 1954. It provides for the common defense by its members against armed attack or a threat to their peace and security. (When the treaty was written Laos, Cambodia and Vietnam were extended the protection of the alliance by virtue of a protocol appended to the treaty.)

Military defense is the keystone of SEATO, although economic, social and cultural activities form a part of the structure and are designed to strengthen member countries by promoting economic progress and social well-being.

The highest authority in SEATO is the Council of Ministers, which

is composed of the ministers for foreign affairs of the member countries. At its annual meeting, the council sets broad policies, reviews the program of activities and gives political guidance to the military authorities.

More on the working level, SEATO Council Representatives form a group which meets monthly, or more often if necessary, in Bangkok. In most cases, council representatives are the ambassadors to Thailand from their respective countries.

The Secretary General of SEATO is the head of the permanent civil offices at SEATO Headquarters in Bangkok, Thailand, and coordinates the various activities of the organization.

The highest military authority in SEATO is the Military Advisors' Group. It is made up of high ranking military officers from member

countries. This group meets twice a year and is responsible to the SEATO Council.

The Military Planning Office, located at SEATO Headquarters, works under the direction of the Military Advisors' Group. This staff of senior officers of the Army, Navy and Air Force of each member country is headed by a Major General with the title of Chief Military Planning Officer. Military advisors' representatives assigned to SEATO Headquarters participate in the work of the Military Planning Office.

One of the activities of the MPO is to organize several exercises every year so that the armed forces of member countries are more closely knit into a unified force to achieve specific goals. These exercises further cooperation and good-will among military forces of the participating member nations.



**FRIENDS** — Australian sailor chats with U. S. Navyman during a break in combined naval exercises.

By 1923, the fleet that had been built during WW I was reduced to eight ships, and by 1930 only four were in commission. But in 1933, the RAN began building up its strength again until it had six cruisers, five destroyers and two sloops at the beginning of World War II in 1939.

During WW II, Australian ships served around the globe. In the Mediterranean, the second HMAS *Sydney* destroyed the Italian cruiser *Bartolomeo Colleoni*. Australian ships were part of the "Tobruk Ferry" in the Mediterranean. When Japan entered the war, the RAN concentrated its efforts in the Pacific, but kept fighting in other parts of the world.

In late 1941 the WRANS (Women's Royal Australian Naval Service) was established.

## THE NAVY DOWN UNDER IS

**F**IFTY-ONE YEARS AGO a Navy was born in the Southwest Pacific. It has fought in every major war since, aiding and supporting the United States and her allies. Called the RAN for short, it is the Royal Australian Navy.

For more than 100 years before the RAN was created, the British Navy had provided sea defense for Australia. But toward the end of the 19th century, the states of Queensland, Victoria and South Australia created their own navies for coastal defense, and New South Wales had training facilities for a local volunteer naval brigade.

However, the Admiralty in London had final responsibility for Australia's naval defense. At the urging of the Australian people, plans were made for armed forces of their own when the Australian Commonwealth was established in 1901.

In 1909, a conference was held in London to discuss defense of the Empire, and the Admiralty agreed to the formation of the Australian Fleet Unit. One of the men attending the conference was Sir William Creswell, known as the "Father of the Australian Navy." He was born in Gibraltar in 1852 and entered the Royal Navy as a cadet in 1865, serv-

ing until 1878. After spending several years in Australia, he joined the South Australian State Navy in 1885 as a lieutenant commander. In 1907 he became Director of the Commonwealth Naval Forces. He was also Director, Naval Board of Administration, when he attended the Naval Conference in 1909.

Two years later, on 10 Jul 1911, the Australian Fleet Unit became the Royal Australian Navy. Creswell became the First Naval Member and kept this office until he retired in 1919. Vice Admiral Sir William Creswell died in 1933.

The RAN's first ships were delivered in 1913, when the cruisers HMAS *Australia*, *Sydney* and *Melbourne*, and the destroyers HMAS *Warrego*, *Yarra*, and *Parramatta* steamed into Sydney harbor.

**I**T WASN'T LONG before the young RAN received its baptism of fire.

Within a year it was involved in World War I, scoring a victory when the light cruiser *Sydney* destroyed the German raider *Emden* off Cocos Island in the Indian Ocean. Fighting in all theaters during WW I, the RAN lost 85 officers and men. Its only ship losses were two submarines,

**W**AR WASN'T ALL SUCCESS for the sailors from Australia. The year 1942 was particularly disastrous. HMAS *Perth* was sunk in the Battle of Sunda Strait on 1 March . . . *Yarra* was sunk by Japanese cruisers . . . *Vampire* went to the bottom after a Japanese dive-bomber attack off Ceylon . . . the depot ship *Kuttubul* was sunk . . . *Nestor*, *Canberra* (see box), *Voyager*, and *Armidale* were lost.

But the same year, RAN cruisers *Australia* and *Hobart* were part of the group that faked the Japanese out of position in the Battle of the Coral Sea, enabling the U.S. carriers *Yorktown* and *Lexington* to stop the Japanese advance toward Australia.

In 1943 HMAS *Shropshire* was commissioned to replace *Canberra*, and later, *Shropshire*, *Australia*, *Arunta* and *Warramunga* took part in landings at New Britain Island in the Pacific. HMAS *Gascoyne*, the first Australian-built frigate, was launched in Svdney.

*Shropshire* and *Arunta* took part in the Battle of Surigao Strait in 1944. This was the last major naval surface battle of WW II.

RAN ships participated in Philippine and Borneo landings, the Burma



campaigns and the landings on the Japanese home islands in 1945. When Japan surrendered in August 1945, the RAN had lost 219 officers and 1951 enlisted men, along with 14 ships.

Naval occupation forces in Japan included RAN ships.

In 1948 the RAN's fleet air arm was established and the aircraft carrier HMAS *Sydney* was commissioned.

**D**URING THE KOREAN CONFLICT, nine ships took part in 13 tours of duty, and nearly 5000 officers and men fought for the UN cause. RAN ships steamed close to 463,000 miles, and their big guns blazed away with more than 26,000 rounds. *Sydney* took Navy squadrons to Korea, where Australian pilots got a workout, flying thousands of sorties.

In 1955 the aircraft carrier HMAS *Melbourne*, the RAN's steam-cata-pult, mirror-landing flagship was commissioned. She embarked the

## THE TOPS

new turboprop *Gannet* and the all-weather jet fighter *Sea Venom*, which had replaced the older *Firefly* and *Sea Fury* models. *Gannet* is still in use with the fleet air arm's antisubmarine force.

Today's RAN is a small, but mobile, force. In 1960, Australian ships visited more than 40 overseas ports, most of them in Asia. Two RAN ships are always on duty with the British Commonwealth Strategic Reserve in Singapore.

Australian ships regularly join with the navies of the SEATO (Southeast Asia Treaty Organization) countries in training exercises. SEATO, an alliance formed between Australia, France, New Zealand, Pakistan, the Philippines, Thailand, the United Kingdom and the United States, was born by treaty in Manila, P. I., in September 1954. SEATO nations have pledged aid to one another in the event of an armed attack upon any member or a threat to the peace and security of Southeast Asia.

**A**USTRALIA'S NAVY concentrates the major share of its efforts these days in the field of antisubmarine warfare. It has 19 ships in commission, with two brand new frigates



**SHARP SHIPS** — Destroyer HMAS *Vampire* is one of three in her class. Below: Frigate HMAS *Yarra* goes through her paces off Australian coast.



**TOGETHER** — Units of Australian fleet that took part in SEATO exercise are (left to rt.) HMAS *Queenborough*, *Voyager*, *Vendetta*, and *Melbourne*.





**HOOKED**—Royal Australian Navy Venom fighter lands on HMAS Melbourne.

that will soon be added to the fleet.

In 1961 the frigates HMAS Yarra and Parramatta were commissioned. They are 2200-ton ships, modified versions of the Royal Navy's *Whitby* class. Carrying antisubmarine mortars, the ships were built in Australian yards. Both they and the two being built are to be fitted with the British close-range antiaircraft missile, *Seacat*. These frigates have a top speed of over 30 knots.

Besides these two new frigates, Australia's combat fleet is made up of three *Daring* class destroyers similar to the *Daring* class of the British fleet; three "Q" class antisubmarine frigates; a fleet training ship, the *Battle* class destroyer HMAS Anzac; and Melbourne, the flagship.

HMAS Vampire, Voyager and Vendetta are the 2800-ton *Daring* class destroyers. They carry six 4.5-inch guns, six 40mm guns, five 21-inch torpedo tubes and a three-barrelled antisubmarine mortar. These ships are used for air defense and surface gunnery as well as sub hunting, and are capable of speeds over 30 knots.

More antisubmarine punch is provided by the three "Q" class frigates,

HMAS Queenborough, Quiberon and Quickmatch. These are 2000-tonners armed with antisubmarine mortars, two four-inch guns and two 40mm antiaircraft guns. Originally built as destroyers in Britain during WW II, they have been converted to antisubmarine frigates in Australian shipyards during the last eight years.

HMAS Anzac is a 2840-ton *Battle* class destroyer which carries triple-barrelled antisubmarine mortars, four 4.5-inch guns, and 12 40mm antiaircraft guns. She is a post-WW II ship, built in Australia.

Melbourne, with her Gannet and Venom aircraft, is regarded by the RAN as the most powerful unit in the fleet. The Venoms can support ground troops and protect convoys from marauding aircraft, while the Gannets hunt and destroy enemy subs, lay mines or attack enemy shipping and shore targets.

Meanwhile, Sydney has been converted to a fast troop transport.

**T**HESE COMBAT SHIPS are backed by support vessels ranging from training frigates to survey ships. Survey vessels are HMAS Warrego, Barcoo, Paluma and Bass. The Navy works

with government officials in planning, surveying, charting and oceanographic projects. The four RAN survey ships are tackling the tricky task of charting Australia's coastline. Two ships are doing oceanographic research that may produce new information on weather trends, fishing and minerals in offshore waters.

HMAS Anzac gives Australia's officer cadets and apprentices their first at-sea training, and HMAS Kimbla helps carry out experiments in modern sea warfare. A new ASW weapon is now undergoing tests.

HMAS Supply is a fast replenishment tanker now commissioned in the RAN.

Next year the RAN plans to operate Melbourne as an ASW helicopter carrier. New helicopters are being obtained for this purpose. In any future war, modern submarines would almost certainly be used to try to cut Australia off from her allies. The ship-borne helicopter is now one of the main weapons that would be used to counter the submarine threat. Sub detection was once based on the sub's breaking the surface, or on listening devices picking up noises of the raider beneath the sea. But helicopters to be used by the RAN will utilize an active sonar that will send out probing signals which bounce off a submarine. This sonar device is suspended from the helicopter as it hovers above the sea. Melbourne, in her new role, could provide helicopters for a mobile ASW screen for convoys.

**R**AN PLANNERS see future destroyer escorts as versatile, all-purpose ships designed to deal with enemy submarines, aircraft or surface ships. The choice to meet these requirements is the United States' *Charles F. Adams* (DDG 2) class guided missile destroyer. The U.S. is now building two of these ships for the RAN. Their big weapon is the Tartar surface-to-air missile.

A new survey ship is being built to help chart Australia's long coastline.

Six men, known as the Naval Board, head the RAN. The president of the board is the Minister for the Navy, and directly responsible to Parliament and the people of Australia. Other board members are the Chief of the Naval Staff (the top post in the RAN); Second Naval Member (responsible for naval per-

**FLAGSHIP** of R.A.N. HMAS Melbourne refuels from USS Hassayampa (AO 145).





sonnel and training); Third Naval Member (technical services and ship construction); Fourth Naval Member (supply); and the Secretary, who is also permanent head of the Department of the Navy.

Ships of the combat fleet come under the operational and administrative control of the flag officer commanding the Australian Fleet. Normally flying his flag in *Melbourne*, he is responsible to the Naval Board.

Current strength of the RAN is about 1000 officers and 9500 enlisted men, with more than 8000 civilians providing much of the shore backing.

**F**UTURE SAILORS of the RAN have five training establishments in which they can learn the ways of the sea and current methods of naval warfare. The schools are: The Royal Australian Naval College at Jervis Bay; the Apprentices' School at Quaker's Hill, near Sydney; the Junior Recruits' Training Establishment at Fremantle; the Recruit School at Flinders Naval Depot; and the Junior Musicians' School at Flinders. In addition, there are a number of schools that give advanced specialist training to enlisted men.

The Naval College began a new and lengthier training program in 1961 to prepare cadets for service in a more technical navy. Boys in the normal entry age group of 14½ to 16½ will have three years and eight months of study, and special entries (students who have already reached enrollment standards) will have one year and eight months at the college. To provide a break in the concentrated academic studies, cadets will spend a year at sea as midshipmen, after which they will spend two years at either Britannia Royal Naval College at Dartmouth, England, or the Royal Naval Engineering College, an extension college of London University.

Apprentices' School trains 15- to 17-year-old boys to be mechanical craftsmen, specializing in naval equipment. Four years are spent at the school, with a final year at sea before graduation.

At Fremantle, the Junior Recruit Training Establishment gives a year of academic and seamanship studies to 15½- to 16½-year-old boys before they are sent to a specialist school which will qualify them for ship-board service.

Flinders Naval Depot takes Navy



IN PORT — RAN's main base is located at Garden Island in Sydney harbor.

recruits who do not come from a specialized naval school. Recruits from 17 to 26 go through an eight-week introduction to the RAN before attending a specialty school.

Prospective musicians in one of the RAN's four bands receive up to three and a half years of training in Junior Musicians' School at Flinders. The boys, between 15 and 17 years old, enlist for nine years and graduate as Musicians First Class.

Various specialist schools are offered to petty officers, giving instruction in such diverse jobs as ASW

detection, photography or atomic, biological and chemical defense.

Flinders Naval Depot is also the WRANS recruit training center. The women's service was disbanded after WW II, but reestablished as a peacetime service 11 years ago. Currently, more than 300 Wrens serve as radio operators, radar plotters, sick bay attendants, cooks, stewards, stores assistants and drivers.

Wrens enlist for either four or six years, but are released if they wish to marry. Girls are selected from the ranks for officer training.

### Ships Named Canberra

The closeness of the Australian and U. S. navies is demonstrated by our naming a cruiser after the sunken RAN cruiser *Canberra*. The Navy's second guided missile cruiser, *uss Canberra* (CAG 2) is also the only U. S. Navy cruiser with the name of a foreign capital.

Canberra, Australia's capital, is named from an aboriginal word meaning "basin," which describes the location of the federal city in New South Wales.

HMAS *Canberra* was a 10,000-ton, 630-foot cruiser of the *County* class. When Australia declared war on Germany in September 1939, *Canberra* was one of the two RAN heavy cruisers in existence, along with four lighter cruisers.

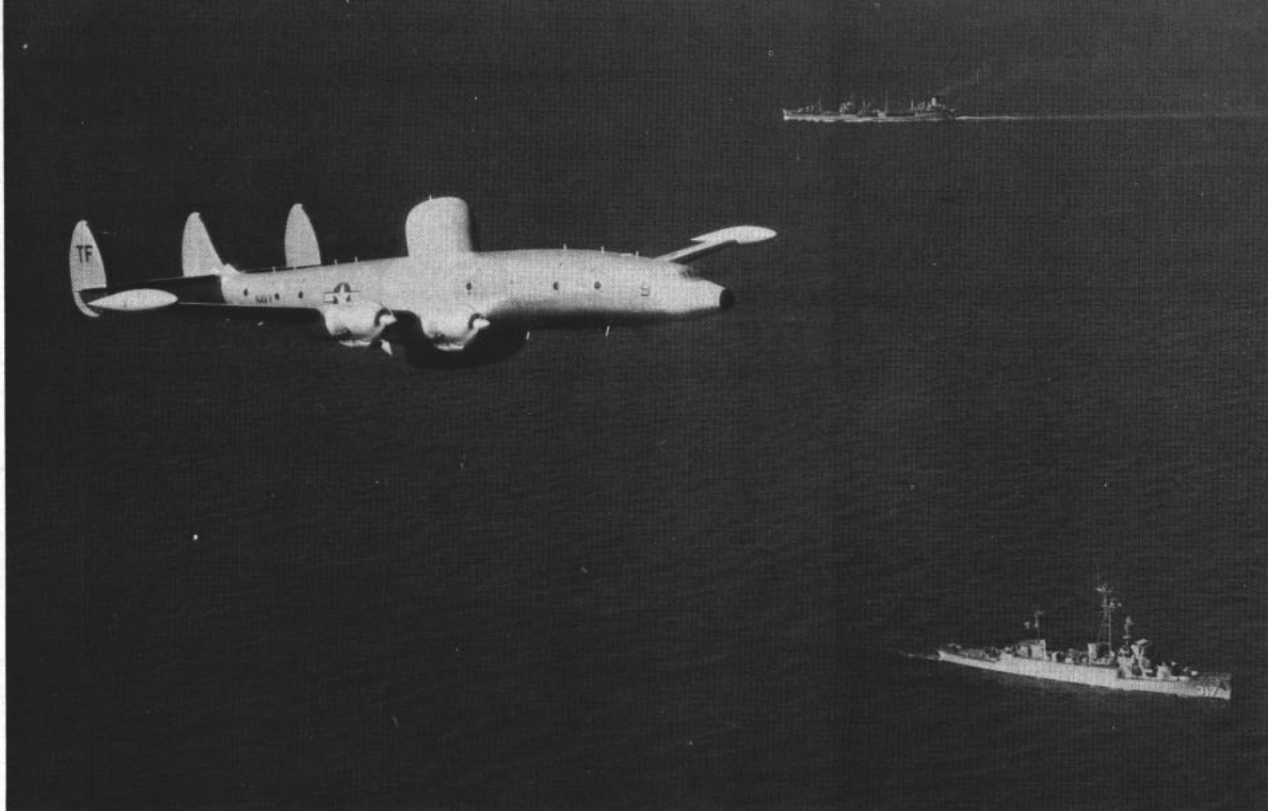
From 1939 through 1942, *Canberra* fought with the British Fleet in the Mediterranean, and with the Royal Indian Navy bombarding Italian troops and transports along the coast of Italian Somaliland.

When war appeared imminent in

the Pacific, she returned to that area and later fought alongside ships of the U. S. Fleet. She and three U. S. heavy cruisers were lost in the Battle of Savo Island in the Solomons, 8-9 Aug 1942.

The U. S. Navy commissioned *uss Canberra* as a heavy cruiser (CA 70) in October 1943. Christened by the wife of Sir Owen Dixon, Australian Minister to the U. S., she was originally laid down as *Pittsburgh*, but the name was changed to memorialize the Australian ship. In 1956, *Canberra* was recommissioned as a guided missile heavy cruiser.

The Commonwealth of Australia presented our *Canberra* with a plaque, replica of the RAN *Canberra*'s badge. Made of Australian wood and surmounted with a Navy crown, the original plaque is mounted in the cruiser's wardroom; a bronze replica of the plaque is mounted on a bulkhead on *Canberra*'s starboard quarterdeck.



WATCH ON HIGH — Radar-packing Super Constellation of the North Atlantic Barrier heads out on patrol.



BARRIER men plot their course. Below: Snow adds to hazard of barrier duty.

## The Barrier Always

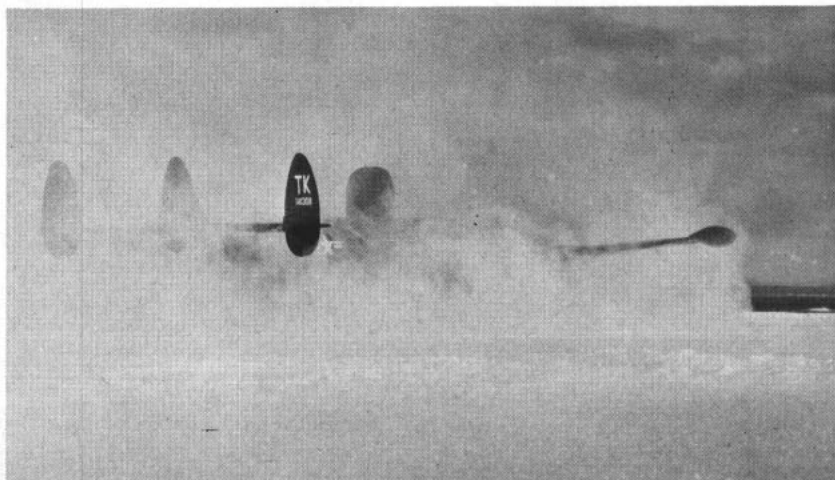
Last year ALL HANDS readers had an extensive look at the over-all operation of the North Atlantic Barrier Flights—those airborne extensions of the DEW Line which, since 1956, have helped form a deterrent against surprise attack on the U. S. east coast.

Since 1956, Airborne Early Warning Squadron Eleven, operating out of Argentia, Newfoundland, as one of the three squadrons assigned to the North Atlantic Barrier, has flown the Argentia-Azores run. Late last summer, however, two new barriers were established. These new barriers present new problems, and new hazards, but to the crews who man the

radar-packed WV-2 "Warning Star" Super Constellations, they're essentially the same. To them, they still mean long hours in the sky over the icy waters of the North Atlantic—and just plain hard work.

As we've pointed out before, no word-picture of the barrier flight story can be really complete. Preparation for each flight goes back far beyond the hours spent in pre-flightting the aircraft. It goes beyond, too, the days of progressive maintenance spent on each plane, and the weeks and months of intensive training required for all officers and men connected with the operation. For a part of that story, here is a portrayal of a 16-hour stretch in the barrier-hopping life of one of AEW-11's crews.

Crew Two is as typical as any of the many crews whose job it is to keep a constant vigil on the barrier. It calls itself the "Zulu-Zulus"—a nickname stemming from an improperly prepared message it once sent out. (Some of the other crews claim that the two "Z's" on Crew Two's Flight Patch represent the sleeping they do on the barrier. This is pure slander, however. Like all the crews, Crew Two knows its job. Those two "Z's" actually represent the spirit and





esprit de corps which a crew flying together time after time can generate, and the common goal of constant readiness which unites them in their daily routine.)

Barriermen, as we've said before, put in a long working day. Several hours before launch time, the crew begins to prepare for the flight. The plane is gassed, then flight engineers give it a thorough pre-flight inspection. Technicians de-bug any electronic gear found faulty during the previous flight. The CIC crew prepares its charts and message forms, and picks up the flight rations. Two meals for each crew member are packed aboard the aircraft, which has a small refrigerator and a three-burner stove.

While the enlisted crew members are performing these tasks, the officers are preparing navigation charts, being briefed on the weather, and picking up confidential publications. They are briefed at the Operational

## Stays Up

Control Center concerning exercises on the barrier, transiting ships and aircraft, and communications conditions. Normally, the crew boards the aircraft and taxis out of the hangar for engine run-up about 20 minutes before scheduled launch time.

Weather plays a big part in barrier flights. Takeoffs must often be made in below-zero weather, and frequently strong crosswinds will make the huge *Connie* sway down the runway. The best altitude for maximum radar coverage often coincides with cloud-top levels, making flights a constant series of jolts and bounces. Eating and sleeping when off watch can be difficult—but the experienced barrierman, as does his shipboard counterpart far below on the turbulent ocean, learns to cope with all of this.

Barrier flights can, and do, vary from the sheer boredom of smooth weather flying and no contacts to the confusion of rough weather and heavy traffic. There are takeoffs under low ceilings and near-zero visibility, and landings under conditions which vary from extremely trying to just plain impossible. Through it all, most barriermen really earn their flight pay.

—R. S. Oakley, Jr., LTJG, USNR

NOVEMBER 1962



WHO'S UP? — Navigators flip to see who will navigate first watch. Below: Connie gets an all-important maintenance check before flying a mission.



AWAY WE GO — Crew of barrier patrol plane receives pre-flight briefing.





'CANNED' MUSIC — Tenth Naval District Steel Band makes music with its pans and a penny whistle.

## Pans Get Sweet and Hot

**T**HE NAVY, like the rest of the armed services, has a reputation for stressing uniformity. Uniformity is important, of course, in its place. At the same time it is refreshing to come across an outfit that is about as un-uniform as it is possible to be, yet remain in the Navy. That organization is the Tenth Naval District Steel Band at San Juan, Puerto Rico.

Steel bands, for the benefit of those who are not old Caribbean hands, came into being after World War II, when there was an abundance of empty 50-gallon oil drums in the West Indies and a surplus of native sons who had nothing better to do than find out what could be done with them.

After some experimentation, the tinkers found they could produce a musical instrument by grooving out

areas in the head of an oil drum with hammer and cold chisel. Heating the "pan" over a bonfire and adjusting the tension of the grooved areas enabled them to produce a desired musical note by striking the drum's head with a mallet.

Making a tuneful steel drum is not an easy trick. It requires a good ear and a steady hand to produce the right concavity, the right tension and a cut-off at the right point to produce the right pitch.

The early steel bands, native style, were used principally to provide local color for tourists visiting Trinidad, Barbados, Antigua, St. Croix and St. Kitts.

In 1957, however, Rear Admiral Daniel V. Gallery, then Commandant of the Tenth Naval District, visited Trinidad and was so intrigued with

the music of the steel bands that he bought a full set of "pans" and converted the Tenth Naval District Band into a steel band.

Until Admiral Gallery retired the band was known unofficially as Admiral Dan's Pandemoniacs. Although the name was an attention-getter, it didn't do much to describe the sounds which the band now produces.

Far from the noise and disorder suggested by the name, the band's music is more suggestive of blue Caribbean water washing against a beach fringed with palm trees and caressed by the trade winds.

For a while, after the musicians had all but abandoned their more conventional instruments for sawed-off oil drums, the band existed on a strict diet of calypsos and merengues imitating the style of the West Indian steel bands.

While this might have been sufficient for untrained musicians, it didn't satisfy the men of the Tenth Naval District.

They began to improve their instruments until they gained a range of five-and-one-half chromatic octaves.

The bass instruments were extended, filling out their range so that intricate and musical bass lines could be written into the score which, incidentally, looks more like a sheet of piano music than anything else.

As a result of the bandsmen's inventiveness, the band was pulled out of the usual steel band "three chords/two keys" category.

POPULAR Steel Band was started by RADM D.V. Gallery, USN (Ret.) in '57.



**ALL HANDS**



Chief Franz E. Grissom, the band's leader, has composed several numbers for steel bands and arranged others to include piano, bass fiddle and instruments found in Latin bands, such as maracas and bongo drums.

He also wrote a song which features the "penny whistle" as a solo instrument. The penny whistle is a piccolo-like instrument made, oddly enough, by a one-man factory in Maryland and sold all over the Caribbean area, not for a penny but for about fifty cents.

The press kit which the band sends out in advance of its appearances to indoctrinate its hosts in its needs and capabilities, reveals some illuminating facts about the organization.

For instance:

- Close audience contact is desirable, and appearances in large open areas such as stadiums are taboo.

- TV and radio are among the best mediums for hearing the steel band.

- Outdoor performances are OK if there is no rain or direct sunlight to get the instruments out of tune.

- The steel band is usable on floats in parades but the instruments are not marchable.

- The steel band consists of 15 members and an officer-in-charge, who are transported by Navy aircraft.

- The steel band has 20 50-gallon oil drums for instruments. A two-ton truck is necessary to move the instruments and a locked room is necessary to store them.

The kit doesn't say anything about providing a hammer and a small electronic instrument, both of which are necessary to tune the "pans."

Since the Tenth Naval District Steel Band is a Navy band, it devotes most of its time to Navy activities. However, it also has an impressive list of references outside the Navy, too.

They include radio and television appearances on some of the best-known shows on the networks, appearances at the New Orleans Mardi Gras, the Chicago Music Festival, the Brussels World's Fair and so many other places and occasions that space doesn't permit a listing.

Suffice it to say that last year the band members traveled over seventy thousand miles to give more than 240 performances and bring the steel band sound to the ears of everyone



**FULL HOUSE** — Tenth ND Steel Band concert draws large crowd at Bogota, Colombia, during Latin American tour. Below: Experts shape oil drums.

from street dancers to royalty, former President Eisenhower and Pablo Casals.

Their music is heard on movie sound tracks and several record albums. Their latest album is "New Paths for Steel Band," the cover of which pictures Chief Grissom and his band members trekking with their instruments through the El Yunque rain forest near San Juan.

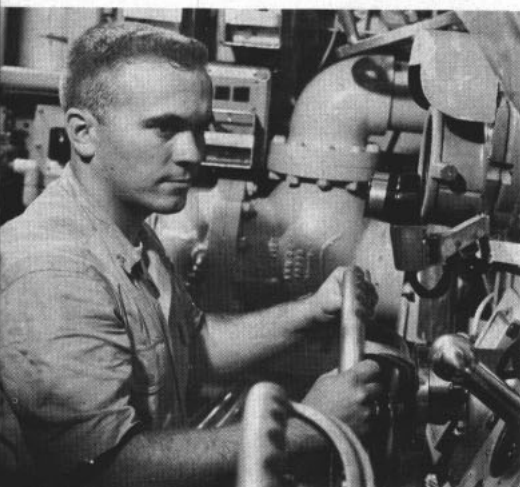
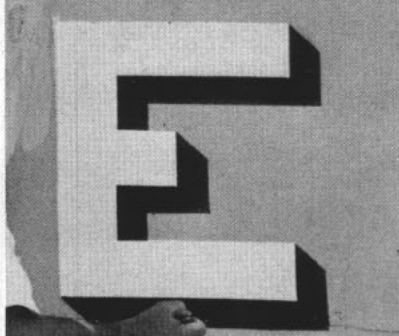
When the occasion demands, the band members still break out their trombones and trumpets; set their hats squarely on their heads and make like a military band, but everyone suspects that beneath the military bearing their souls wear straw hats and sit under palms by a Caribbean beach.

— Robert Neil



**ON THE BEACH** — The band devotes most of its time to naval functions but has an impressive list of appearances in other types of events.





# Here Are Best

**T**HE U. S. NAVY'S Battle Efficiency "E's" for fiscal 1962 have been awarded to ships that have proven through competition at sea to be the most battle-ready in their Fleets.

This readiness is evaluated each fiscal year in competitive exercises by ships of every type in every phase of operation and administration.

The white "E" means that every

## NAVY AIR FORCE, ATLANTIC

*Intrepid* (CVS 11)  
*Lake Champlain* (CVS 39)  
*Duxbury Bay* (AVP 38)

## CRUISER-DESTROYER FORCE, ATLANTIC

*Newport News* (CA 148)  
*John R. Pierce* (DD 753)  
*Manley* (DD 940)  
*Vesole* (DDR 878)  
*Turner* (DDR 834)  
*Moale* (DD 693)  
*Davis* (DD 937)  
*Stribling* (DD 867)  
*Laws* (DD 558)  
*John W. Weeks* (DD 701)  
*Steinaker* (DDR 863)  
*Lowry* (DD 770)  
*Claud Jones* (DE 1033)  
*Courtney* (DE 1021)  
*Taussig* (DD 746)  
*Camp* (DER 251)  
*Huse* (DE 145)  
*Yosemite* (AD 19)  
*Grand Canyon* (AD 28)  
*Yellowstone* (AD 27)  
*Charles S. Sperry* (DD 697)

## MINE FORCE, ATLANTIC

*Meadowlark* (MSC 196)  
*Dash* (MSO 428)  
*Adroit* (MSO 509)  
*Exploit* (MSO 440)  
*Nimble* (MSO 459)

*Aggressive* (MSO 422)  
*MSB 29*

## AMPHIBIOUS FORCE, ATLANTIC

*Traverse County* (LST 1160)  
*Grant County* (LST 1174)  
*Middlesex County* (LST 983)  
*Fremont* (APA 44)  
*Shadwell* (LSD 15)  
*Donner* (LSD 20)  
*Hermitage* (LSD 34)  
*LCU 1487*

## SERVICE FORCE, ATLANTIC

*Suribachi* (AE 21)  
*Rigel* (AF 58)  
*Antares* (AKS 33)  
*Nantahala* (AO 60)  
*Canisteo* (AO 99)  
*Truckee* (AO 147)  
*Mattabesset* (AOG 52)  
*Amphion* (AR 13)  
*Windlass* (ARSD 4)  
*Kiowa* (ATF 72)  
*Shakori* (ATF 162)  
*Weatherford* (EPC 618)  
*Neptune* (ARC 2)  
*San Pablo* (AGS 30)

## SUBMARINE FORCE, ATLANTIC

*Bushnell* (AS 15)  
*Toro* (AGSS 422)  
*Piper* (SS 409)  
*Dace* (SSN 607)





# of the Fleets

member of the ship's company has had a hand in helping his ship win, because every department aboard his ship has been evaluated. Therefore, each crew member is entitled to wear

the white "E" on his uniform for the following fiscal year. It is a distinction to be proud of and every man has worked hard to earn it.

Here are the winners.

## Entemedor (SS 340)

Cutlass (SS 478)

Picuda (SS 382)

Amberjack (SS 522)

Sirago (SS 485)

Penguin (ASR 12)

Clagamore (SS 343)

Sablefish (SS 303)

Nautilus (SSN 571)

Grenadier (SS 525)

Tullibee (SSN 597)

Shark (SSN 591)

## CRUISER-DESTROYER FORCE, PACIFIC

Providence (CLG 6)

Rupertus (DD 851)

Rogers (DDR 876)

Chevalier (DD 805)

DeHaven (DD 727)

John A. Bole (DD 755)

Coontz (DLG 9)

Carpenter (DD 825)

Bridget (DE 1024)

Finch (DER 328)

Dixie (AD 14)

Bryce Canyon (AD 36)

## MINE FORCE, PACIFIC

Vireo (MSC 205)

Prime (MSO 466)

Pivot (MSO 463)

MSL 19

MSL 26

MSB 16

## AMPHIBIOUS FORCE, PACIFIC

Paul Revere (APA 248)

Terrell County (LST 1157)

Jerome County (LST 848)

Floyd County (LST 762)

Thomaston (LSD 28)

Alamo (LSD 33)

Carter Hall (LSD 3)

## SERVICE FORCE, PACIFIC

Rainier (AE 5)

Sirius (AF 60)

Guadalupe (AO 32)

Ponchatoula (AO 148)

Targeteer (YV 3)

Jason (AR 8)

Cree (ATF 84)

Arikara (ATF 98)

Maury (AGS 16)

Bolster (ARS 38)

## SUBMARINE FORCE, PACIFIC

Salmon (SS 573)

Halibut (SSGN 587)

Cusk (SS 348)

Sargo (SSN 583)

Sterlet (SS 392)

Greenfish (SS 351)

Bugara (SS 331)

Menhaden (SS 377)

Blueback (SS 581)

Capitaine (AGSS 336)

Scamp (SSN 588)

Coucal (ASR 8)

## VALUE ENGINEERING YESTERDAY



# VE Can Mean

**A** CHIEF BOATSWAIN'S MATE serving in a Pacific Fleet aircraft carrier took a long second look at a piece of shipboard hardware a few years back, and was struck with an idea. Then, instead of just forgetting about it, he took his idea to his division officer.

This CPO's action resulted in the saving of approximately \$15,000 aboard this particular carrier—plus the elimination of what had been a vexing Fleet maintenance problem. Furthermore, while he probably didn't realize it at the time, he found the solution by applying the principles of value engineering.

Value engineering may strike you as just another of those fifty-cent phrases the Navy is fond of using in its official language. It isn't.

Reduced to its simplest terms, it's a determined effort, from shipyard designing table right on up, to get more value for every Navy dollar. It's a program which can pay off handsomely—and one in which all of us are more than welcome to participate.

The technique of value engineering begins by asking five basic questions: What is the item? What does it do? What does it cost? What else might do the same job as well or better? And, what will *that* cost?

The case in point aboard the aircraft carrier was a common, garden-variety hatch guard—a piece of equipment more than a little familiar to most of us. You've probably passed

similar ones hundreds of times without giving them more than a passing glance.

**L**ET'S LOOK MORE closely at the chief's line of reasoning about the guards and see how it follows the value engineering technique.

What was the item? A hatch guard. What did it do? It prevented crewmen from falling down an open hatchway. How much did it cost? Well, it was when he posed this question that the chief hit pay dirt, for the hatch guards aboard this carrier were elaborate contrivances indeed. They were composed of three-eighths-inch wire rope, with stainless steel fittings attached to each end. The wire rope was painted for preservation, covered with muslin, and served with marline. Another wrapping of muslin was applied; this in turn was covered with canvas, and the ends of the canvas were served with copper wires and tinned. The cost, for all of this? A whopping \$48 per hatch guard.

And what else could do the job? Why not, reasoned the chief, a length of chain to serve the same purpose? Further investigation revealed that chain would, indeed, do the job as well—and that the cost of quarter-inch chain of the required length would be only \$4 per hatch. And in addition, the simple length of chain would require much less frequent, and costly, maintenance.

This helps point out that saving

## VALUE ENGINEERING TODAY





# Victory in Time of Peace

money—call it value engineering or whatever you wish—can and should be an all hands endeavor, and not confined to ship designers and engineers.

It is true that the program achieves its broadest scope and effects the largest savings in shipyards, but the Navy can use your help in this effort too.

**T**HE WHY OF value engineering is simple—the Navy wants to reduce the cost of its ships. During the past couple of decades, shipbuilding costs have skyrocketed. The Bureau of Ships says the cost of building a destroyer now is close to six times as much as it was two decades ago, and a nuclear-propelled ship costs almost 10 times as much as its conventional counterpart did twenty years ago. Therefore, it's up to all of us to help find less expensive ways of obtaining the same results in our shipboard equipment.

Navy value engineering got its start back in 1954, when the Bureau of Ships organized a value engineering branch as the first government effort in this field.

The Chief of the Bureau of Ships sent a team to investigate new ways of reducing the cost of our ships. When the team reported that there was much work being done on similar problems by various industrial firms, an office, reporting directly to the Chief, was established.

Its mission was to investigate and

develop an effective cost reduction program, employing some of the same techniques that industry had been using.

The team made further visits to manufacturers of marine engineering equipment and machinery, diesel engines, air-conditioning and refrigerating machinery, and electronics equipment.

When the information gained during the visits was digested, a pattern for operation began to emerge. First, to identify this cost reduction program, it was named "Value Engineering." Why? Because this name represents the primary object of the program; that is, to get the most value for the money in the products that are engineered in or for the Navy.

Several months after the value engineering unit was established, more engineers were added to speed up the program. Then, it was decided to set up value engineering units in two naval shipyards to see what could be done from the field. The units, each consisting of three to six design engineers and production personnel, were sent to Puget Sound Naval Shipyard and New York Naval Shipyard. These first field teams worked so well that all naval shipyards now have them.

**V**ALUE ENGINEERING may be expressed as the taking of a hard look at a new or workable design to retain its function, quality and re-

liability at a lower cost. It is *not* the process of building or obtaining a cheaper end product at the expense of quality and reliability.

For example, a cap screw used to secure the cover panels on a radar repeater cost \$2.11 when purchased from the manufacturer. After investigation, value engineers found that the cap screws cost this much because the knurled head was five-thirty-seconds of an inch longer than that on a standard cap screw that cost three cents and worked just as well. The three-cent screw was then substituted.

When a Naval designer starts to work on a project, he is faced with three basic considerations—(1) reliability, (2) practicability of manufacture, and (3) time.

His most important requirement is reliability—the item must work under the rigid, adverse conditions found at sea. As a result, a very reliable, but sometimes costly item is produced.

The cap screws for the cover panels on the radar repeaters are examples of how much money can be saved when an item can be manufactured from a standard assembly line. Thus, practicability of manufacture is also important to the designer.

Of course, time is always important. A designer usually is faced with a deadline for producing an acceptable plan for an item. Occasionally the day-to-day pressures of meeting deadlines force attention to the re-





liability of the gear and how soon it can be produced, rather than on how much it will cost.

**V**ALUE ENGINEERS are always at work on these problems. For instance, the Navy has built many wooden-hulled minesweepers to rid coastal waters of magnetic mines. As far as is practical, their equipment is nonmagnetic. The diesel engines in these sweepers have nonmagnetic aluminum blocks. A neoprene-coated, stainless steel clamp is used to attach fuel and air lines to the engines. One minesweeper needed clamps to replace those that had been lost or damaged while the engine was being repaired. When the shipyard made the necessary purchase from the engine manufacturer, the clamps were found to be made of a magnetic form of stainless steel. Time was very important, so the shipyard asked the local value engineering team to come up with a solution.

When the value engineers checked out the price of the stainless steel clamps, they found, to their amazement, that the clamps were costing \$2.70 apiece. After considerable

search, they came up with a clamp used in aircraft engines for a similar purpose. It was strong enough to withstand engine vibration, and its neoprene coating was resistant to oil and gasoline. It was completely non-magnetic. It cost nine cents. As might be expected, this clamp was used. Besides being less expensive, it was more reliable, already in mass production, and available quickly.

**B**UT A VALUE engineering team can't live and work aboard a ship and doesn't get the chance to take a long look at some of the shipboard equipment used regularly by crew members.

This is the phase of value engineering that can apply to you and almost every sailor in the Fleet.

Daily use of a certain piece of equipment may bring ideas of a better design or of substitution of something that costs less, but does the same job. That's what the chief did.

Here is what you can do when you have an idea about improving a piece of shipboard hardware. To help you answer the five basic ques-

tions, first get the facts—know the cost of the item. If this can't be checked, and frequently it can't aboard ship, ask yourself how much it costs to *maintain* this piece of gear. Is it a continuing maintenance problem? Is the equipment casualty rate high? What can be done to simplify the item and reduce maintenance costs and time?

Determine the function. If it has more than one, figure out which is the most important, and which is secondary.

Then, decide whether or not the item is over-designed for its use. Is there a common commercial item available that will perform the same function?

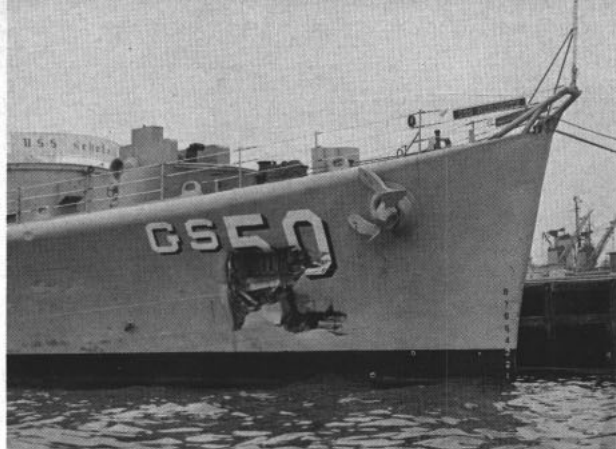
When you come up with an idea, let your division officer know. Value engineering teams in every naval shipyard are always ready to accept suggestions from the Fleet, if they come through the chain of command.

If you have an idea that's approved, you may see the results of your value engineering project aboard your ship.

—Jim Lewis, JO2, USN.







## She's Seaworthy Again

**T**HE REPAIR SHIP *USS Klondike* (AR 22) made quick work of a tough job when the bow of *USS Rehoboth* (AGS 50) was damaged during an accident in San Diego harbor earlier this year.

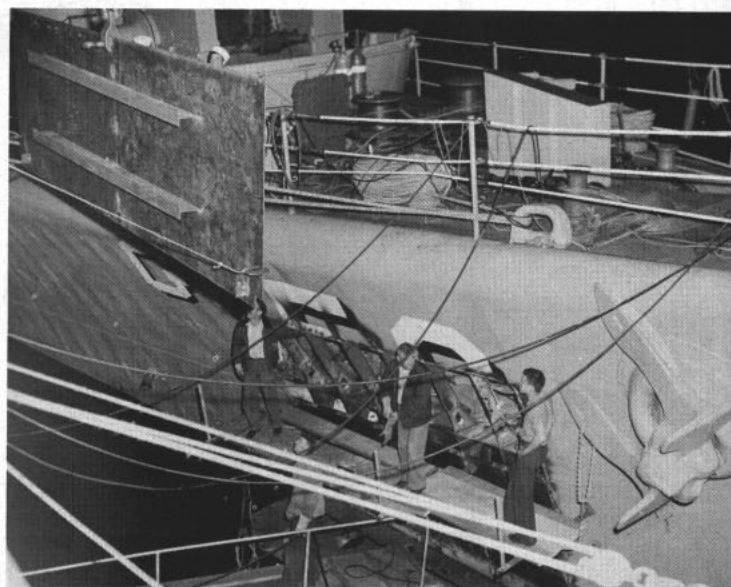
Two hours after the accident *Klondike* repairmen were hard at work on board the damaged ship. Divers checked the hull while shipfitters, pipefitters, welders, electricians and other specialists prepared lists of materials and equipment needed to do the job.

When told *Rehoboth* had urgent operational commitments and would have to be completed within 10 days, the *Klondike* repairmen winced, then went to work around the clock.

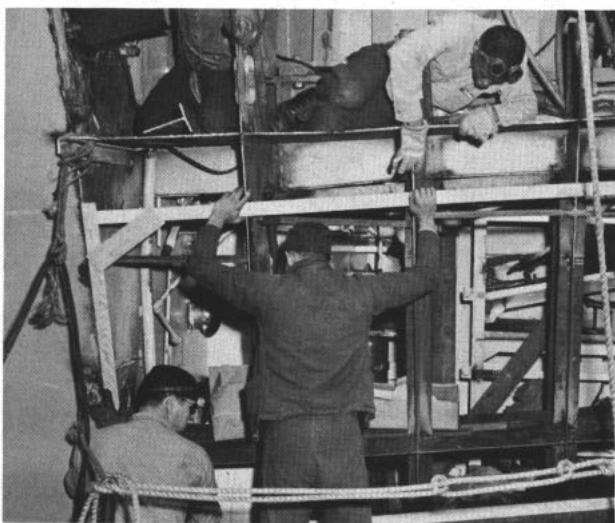
First, the twisted and torn metal had to be cut out, damaged equipment removed, severed cables pulled and debris cleared away. Next, new frames were forged, shaped and welded into place. Warped decks and stiffeners were straightened and replaced. Heavy shell plates were cut and formed to the curvature of the hull, then lowered into place and welded.

Seven days after the accident *Rehoboth* was seaworthy. At this point, *Klondike* painters moved in to put on the finishing touches. Three days later a special cable that had been ordered from the Philippines arrived and was installed.

By the time the dust was settled *Rehoboth* was under-way to meet her operational commitments. On schedule.



**TEAM WORK** — Men of *USS Klondike* (AR 22) install shell plates and (below) weld new frames into place.



**READY TO GO** — Damage to *Rehoboth* was repaired in record time. Rt: Painter adds the finishing touches.



# What's Coming for FY 63?

**T**HE CONSTRUCTION of 37 new ships and 45 service and landing craft, ranging from a *Forrestal*-class CVA to covered lighters, has been authorized under the fiscal year 1963 ship-building program. The modernization or conversion of 35 existing ships and one floating drydock has also been approved.

Here's a preview of ships to come:  
**New Construction**

● **One CVA**—This conventionally powered attack aircraft carrier will be approximately the same size as those of the *Forrestal* class, but will have improved electronics and communications equipment. The ship will be equipped with a high capacity communications system (HICAPCOM), the Navy Tactical Data System (NTDS), and an automatic aircraft landing system.

● **Six SSBNs**—The nuclear-powered Fleet ballistic missile submarines will each be armed with 16 *Polaris* missiles that can be fired while submerged. Navigation devices in the new subs will insure accurate positioning before the missiles are fired. In addition, the SSBNs will be equipped with standard torpedoes for action against enemy subs or surface ships.

● **Eight SSNs**—These nuclear-powered attack submarines will be essentially the same as *Thresher*-class subs authorized in previous years, but will embody many improvements. They'll be antisubmarine warfare ships designed primarily to destroy other submarines, but they will also be effective against surface ships. The SSN's ASW capability will be bolstered by long-range sonar and guided- and rocket-assisted torpedoes.

● **One DLGN**—The nuclear-powered guided missile frigate will come equipped with the still experimental long- and medium-range *Typhon* surface-to-air, surface-to-surface and surface-to-missile system. She will operate offensively with carrier strike, ASW and amphibious forces. In the *Typhon* system, a single multipurpose radar will perform all functions formerly assigned to separate search, acquisition, tracking and guidance radars.

● **Four LPDs**—Two of these amphibious transport dock ships are already under construction. All will be vital units in the Amphibious Strike Force. The new ships will carry both landing craft and transport helicopters along with combat

troops and their equipment.

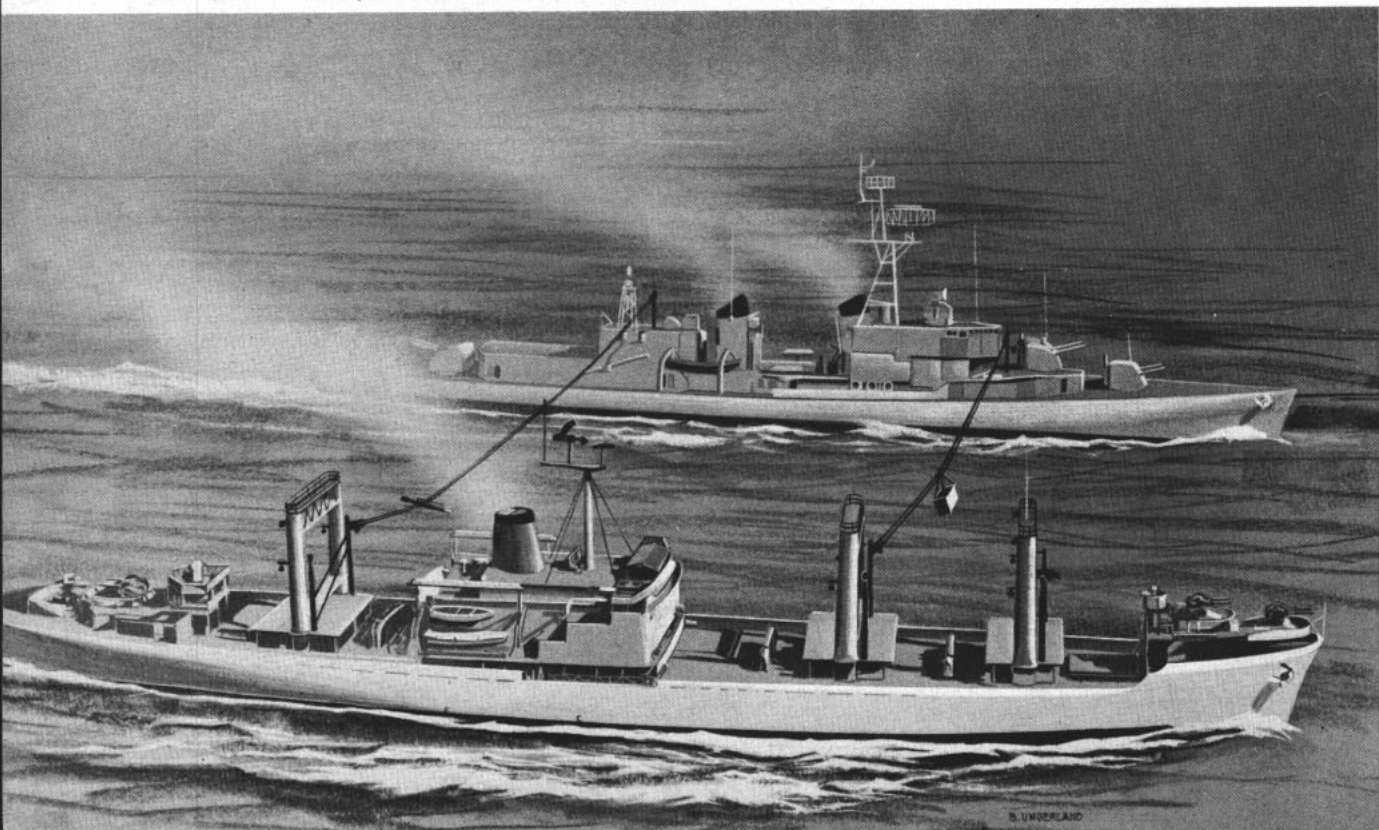
● **One LPH**—The amphibious assault ship is another important part of the Amphibious Strike Force. Designed to operate in conjunction with the amphibious transport dock, the LPH will transport troops and their equipment, then land them by helicopter during the vertical envelopment phase of an amphibious assault.

● **Five DEs**—The escort ships authorized this year are specially designed for locating and destroying enemy subs. They are essentially repeats of those in the 1962 program. They will combine improved seakeeping ability with advanced antisubmarine warfare capabilities, including long-range sonar, an antisubmarine rocket launcher, antisubmarine torpedoes, drone ASW helicopters and conventional 5-inch guns.

● **Three DEGs**—These ships have the same hull, machinery plant and ASW armament as the DEs. In addition to antisubmarine warfare capability, the new guided missile escort ships will be equipped also with the *Tartar* missile system for operations against enemy aircraft.

● **Two PGMs**—Authorized for construction as prototypes, the motor

**'FAST' SHIP** — Two post-WW II ammunition ships will be modernized for rapid handling of guided missiles.





gunboats will operate offensively on patrol, blockade and surveillance missions in coastal areas. Their size, speed, endurance, seakeeping qualities and firepower will enable them to perform many tasks in naval operations in waters other than high seas.

● **Two AGORs**—The oceanographic research ships will be floating laboratories manned and operated by civilians. Studies will concentrate on collection of oceanographic and acoustic data for application in naval warfare—particularly in antisubmarine warfare and in support of the national oceanographic research program. The ships will be 209 feet in length.

● **One AGS**—This surveying ship—the first of its type to be built by the Navy—will conduct hydrographic surveys and collect special oceanographic, acoustic and meteorological data. It will be manned by civilians, but will be operated under the technical direction of the Oceanographer of the Navy. The AGS will generally follow construction lines of the AGOR. Her oceanographic research spaces, however, will be adapted for hydrographic survey operations.

● **One AOE**—The recent design of fast combat support ships will mean a radical innovation in underway replenishment to the Fleet. The AOE will be able to transfer ammunition and stores at sea. Vertical replenishment will be performed by two cargo helicopters carried on board. The speed of this ship is such that it can travel as an integral part of the fast striking forces.

● **One AC (FBM)**—This will be the third new construction submarine tender which can provide full mobile base facilities and support for nuclear-powered submarines, including *Polaris* submarines. Two others were authorized in the 1960 and 1962 programs. This ship will have the capability and facilities for the handling, replacement and limited servicing of *Polaris* missiles. She will be able to support nine SSBNs, with as many as three receiving complete alongside service at the same time.

● **One MSTs (RO/RO) Cargo Ship**—The roll on—roll off, cargo ship for the Military Sea Transportation Service is being specially constructed for the rapid handling of wheeled and tracked vehicles. The ship's interior will be fitted with a system of vehicle ramps from the upper 'tween deck to the weather deck and decks



**GROWING GROUP**—New construction calls for six more *Polaris* submarines.

below. A stern ramp will lead to the upper 'tween deck level for easy access from and to dockside, lighters and such; thus the designation roll on—roll off. This ship is an improvement of the highly successful *Comet* now in regular service in support of U. S. forces in Europe.

● **Service and Landing Craft**—Also authorized for new construction under the FY '63 shipbuilding budget are seven harbor tugs (YTB); nine covered lighters (YFN); three repair, berthing and messing barges (YRBM); 21 landing craft, personnel, large (LCPL); four landing craft, swimmer reconnaissance (LC-SR); and one landing craft, utility (LCU).

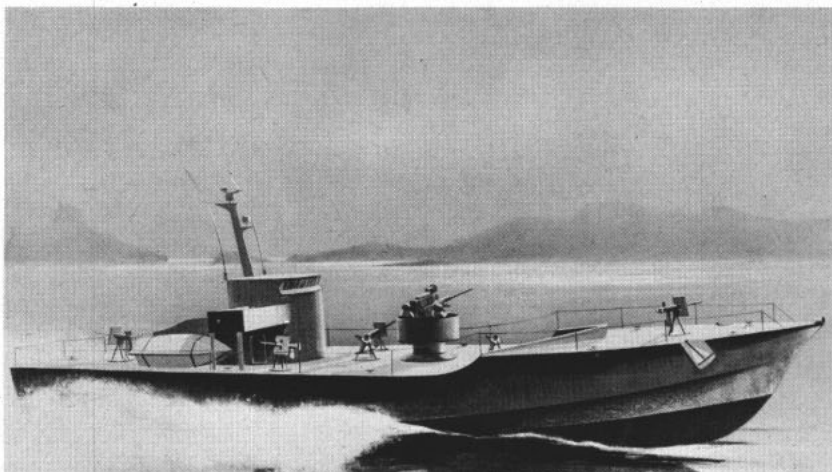
#### Conversions

**A** NUMBER OF EXISTING ships will be given a new look under conversion programs authorized with fiscal 1963 money. Here's a roundup:

● **Twenty-four DDs**—These ships, all *Gearing* class destroyers, are scheduled for remodeling as a continuation of the Fleet Rehabilitation and Modernization (FRAM) program commenced in fiscal 1960. The ships are now 16 to 17 years of age. Their conversion will include complete overhaul, replacement of excessively worn machinery components, repairs to hulls and additions of the latest equipment, including ASW gear, that can be effectively installed. It is expected that eight more years



**FISH OUT OF WATER**—Conversion of an ARD 12 class floating drydock will equip it to take care of *Polaris* submarines at their deployment sites.



**SPEEDSTER** — Two prototype motor gunboats are authorized for construction. These fast boats will operate offensively in coastal waters.

will be added to the useful life span of these ships.

- **One MCS**—The first conversion of an LSV (landing ship, vehicle) to MCS (mine countermeasures support ship) will bring into service a ship that can transport, maintain, operate and support 20 minesweeping launches and two helicopter minesweepers. The finished product will be used mainly in support of amphibious landing operations in forward areas.

- **One CC**—The conversion of an old CVL to command ship status will produce a ship equipped to serve as a mobile command post for top echelon commands. The CC will have facilities for world-wide communications and the rapid processing and display of command data. In the conversion process, a portion of the carrier's hangar deck will be made into special command spaces and

fitted with extensive electronics equipment. The major portion of the flight deck, except for space necessary for helicopter operations, will be used for the complex communications antenna arrays.

- **Two AEs (Fast)**—Two of today's post-WW II ammunition ships will be modernized for the rapid handling and transfer of missiles. Three holds will be rigged for missile stowage, and a fast automatic shuttle transfer (FAST) system will be installed. Completely mechanized facilities for moving missiles from stowage to transfer stations will mean safer missile handling and reduce transfer time.

- **One AGMR**—The major communications relay ship will be the result of conversion of an old CVE hull. The AGMR will have special antenna systems for mobile communications with operating forces. She

will be used with present shore communications services, as a substitute for essential communications facilities that may be lost and as a temporary extension of communications into areas of special operation. The ship was approved for conversion last year, but was delayed to make funds available for other shipbuilding projects.

- **Two AGTRs**—The conversion of two *Victory* ships to technical research ship status will bring into service two mobile bases that specialize in communications and electromagnetic radiation research.

- **Two AOs (Jumbo)**—The conversion of two Fleet oilers into jumbo oilers is an extension of the FRAM concept, under which the life of old ships is extended through rehabilitation and modernization. The project will involve "jumboizing" hulls through insertion of a new tank section which will increase the over-all length by approximately 90 feet, thereby increasing petroleum cargo capacity from 100,000 to 150,000 barrels. Replacement and renovation of pumps and deck gear will increase their petroleum transfer rate.

- **One AK (FBM)**—This will be the first conversion of a cargo ship to Fleet ballistic missile status. The AK (FBM) will be able to resupply completely deployed FBM submarine tenders with *Polaris* missiles and other submarine weapons. The remodeled AK will also supply frozen and dry food provisions, general cargo, technical spare parts, packaged petroleum products, bottled gas and bulk and diesel fuel. No armament is planned for the ship. She will operate as an independent unit with a civilian (MSTS) crew and a Navy unit embarked.

- **One AVM** — *Norton Sound* (AVM 1), a guided missile ship, will be reconfigured for the test and evaluation of the Navy's latest weapons system. Conversion calls for installation of a *Typhon* weapons system prior to its installation as an operational system in a combatant ship. *Norton Sound* has served as a sea-going test platform for various other missile systems during the past 12 years.

- **One ARD**—A conversion of a floating drydock will provide a *Polaris* deployment site with facilities for drydocking and limited repairs. The drydock's capacity will be more than doubled.



**BIG SWEEP** — Converted LSV will become mine countermeasures support ship which transports and supports 20 sweeping launches and two copters.





## This Bell Has Cheerful Ring

**A**T THE BACK of every submariner's mind is the ever-present prospect of becoming "downed"—in other words, of his ship being unable to surface after a dive.

It's a comforting thought to all of them, however, that should such a disaster overtake them, there is usually a submarine rescue ship not too far away—and that the doughty ASRs and their crews are trained and ready to lend a helping hand.

USS *Queenfish* (SS 393) is one Pacific Fleet submarine which knows this for sure, after a recent surprise rescue training exercise staged near Pearl Harbor.

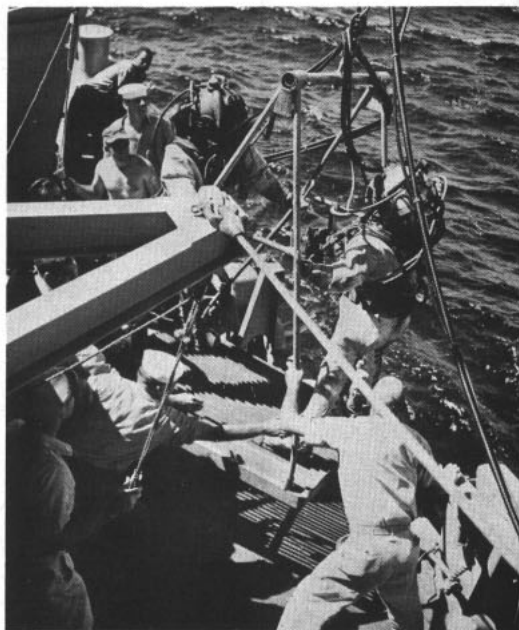
*Queenfish*, en route to Pearl for routine training operations, was instructed to settle to the bottom of the ocean off the coast of the island of Maui. Then USS *Coucal* (ASR 8), which was conducting independent training exercises some 25 miles away, was alerted and directed to speed to the last known position of the—as far as they knew—overdue and downed submarine.

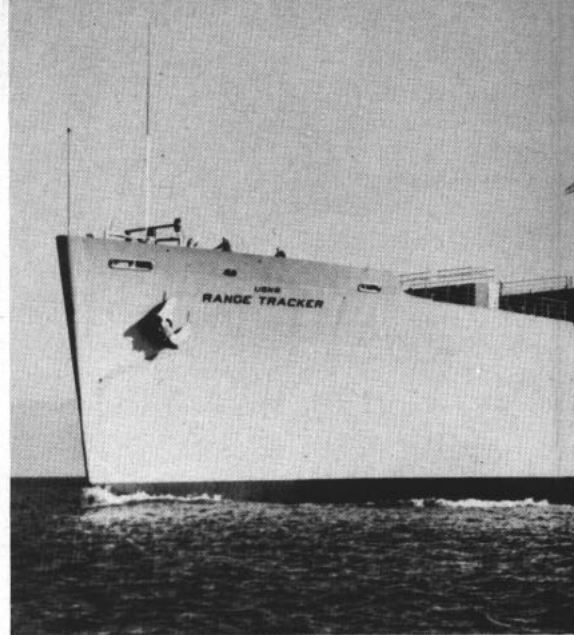
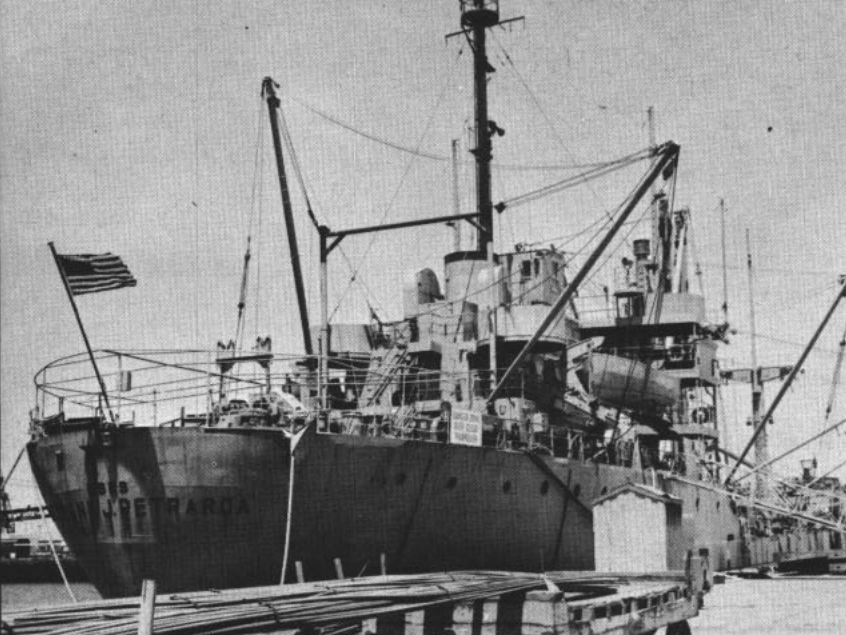
Pumps, air compressors, lifting booms, anchors and mooring gear were all readied for the forthcoming operation. *Coucal's* diving bell, capable of withstanding tremendous underwater pressures, was checked and rechecked. In less than three hours after being alerted, *Coucal* was posi-

tioned over *Queenfish*, and had commenced diving operations.

It was just before the diving bell was sent down for the first time that *Coucal* learned this was just a test. Then, after one test run with her bell, she cleared the area so *Queenfish* could surface and resume course for Pearl Harbor. Her speedy and well-organized reaction to a supposed distress call, however, is making *Queenfish* crewmen breathe easier.

Photos show diving bell being positioned over downed submarine and suited divers on platform ready to be lowered over the side.





TO SEA — MSTs cargo ship USNS Pvt. Frank J. Petrarca loads up. Rt: USNS Range Tracker cruises Pacific.

# It's Service to the

IT WOULD BE DIFFICULT indeed, if not impossible, for any Navyman not to be affected at one time or another by the Military Sea Transportation Service.

He comes in contact with one part of this far-flung organization when he ships to an overseas shore station. During this time, he's with MSTs for days or perhaps weeks—as long as he is on board the MSTs ship.

If, by chance, he goes to his new post via some other means of transportation, his dependents may use MSTs. Almost inevitably, his household effects and car will arrive by MSTs ship or MSTs-chartered ship.

If our Navyman is stationed on board a ship, the oil that provides its motive power may have, at one time or another, been transported by an MSTs ship. The same is true of much of his food.

In several places on this not-so-green earth, MSTs means the difference between surviving and not surviving. MSTs, for instance, supplies the men at Antarctica and those who man the DEW Line.

MSTs ships supply points where a commercial ship would not call because of risks for which there is no insurance coverage or where insurance, if available, would be prohibitively expensive.

There are also places in the MSTs world that a commercial ship would have very little, if any, reason for visiting, but to which the long arm of military preparedness reaches.

THE IDEA OF MAKING the Navy responsible for providing all ocean-borne transportation for the armed forces is an old one. It wasn't until 1949, however, that the idea was adopted.

To put it briefly, MSTs exists for the following reasons:

- To provide sea transportation for personnel and cargo of the Department of Defense (excluding, of course, personnel and cargo transported by units of the Fleet).

- To plan and negotiate for the use of commercial shipping to augment the MSTs nucleus fleet whenever necessary.

- To provide support ships for scientific programs.

- To be ready for expansion in time of war.

MSTs is classed as a fleet and is under the command of a vice admiral. As with other Fleets, MSTs is a component of the Navy's operating forces.

The initials "USNS" which precede an MSTs ship's name go a long way toward explaining the idea of MSTs. "USNS," of course, stands for United States Naval Ship. The approximately 110 ships designated "USNS" are all in the MSTs Fleet. They are manned by officers and crewmen who are members of the Civil Service. All MSTs ships' officers hold Coast Guard licenses.

There are 20 MSTs tankers under the over-all direction of COMSTS.

IN ADDITION to USNS ships, there are three commissioned ships in the MSTs Fleet. *uss Mann* (T-AP 112), *uss Mitchell* (T-AP 114) and *uss Breckenridge* (T-AP 176).

Each transport is under the command of a Navy four-striper and has a Navy crew of about 350 men.

Incidentally, these three transports don't have a monopoly on MSTs billets for Navy men. The 12 USNS transports each have a military department under its own CO and XO.

These officers are responsible for the discipline of the ship's military passengers. Most of the men pulling duty on board these 12 ships are in the yeoman, hospital corpsman, electrician's mate and ship's serviceman ratings.

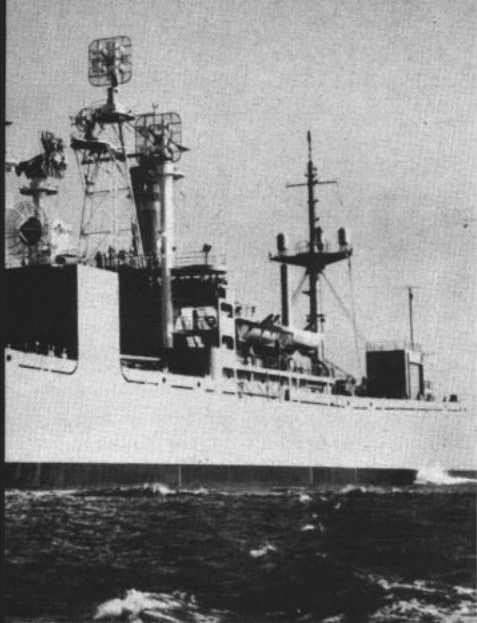
Several MSTs ships engaged in oceanographic survey and missile-tracking work also have military departments where the electronics and communications ratings are in demand.

In addition, numerous shoreside billets exist in its area command offices located in Brooklyn, N. Y.; San Francisco, Calif; London, England; and Yokohama, Japan.

Some shoreside billets are also available at MSTs offices in Washington, D. C., and at 20 overseas ports scattered around the world from Casablanca to Anchorage.

THE FIRST INTERNATIONAL crisis into which MSTs was thrown was





'BIRD' watching is this ship's job.

# Services

that generated when North Korean troops ventured south of the 38th parallel and President Truman dispatched troops to stop them.

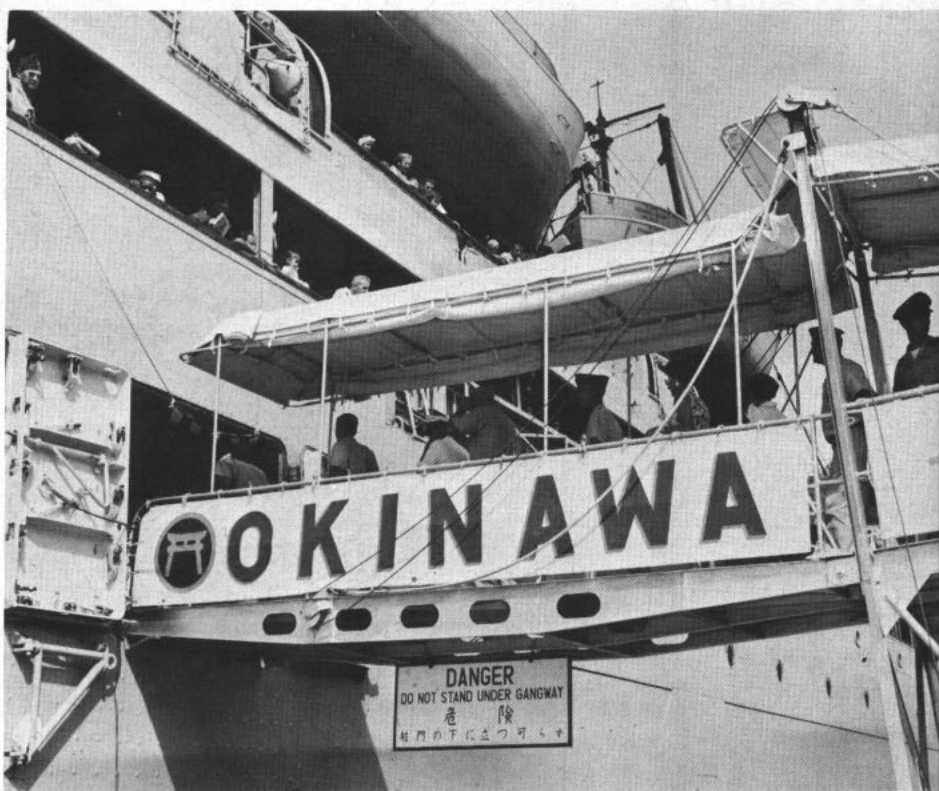
When the first North Korean stepped across the fateful line, MSTs was less than a year old and was still in the process of organization. Only MSTs ships necessary to fulfill normal requirements were readily available. All the rest were laid up in the Reserve Fleet.

The job to be done was staggering. Millions of troops had to be transported with enough food to supply them and enough petroleum products to run their vehicles.

To do it, MSTs teamed up with the National Shipping Authority and the commercial shipping industry and took drastic steps to put ships on the line for operation.

For instance, three commissioned troopships and 12 cargo ships were broken out of the Navy Reserve Fleet and others were taken out of the National Defense Reserve Fleet until a total of 308 ships had been taken out of mothballs and assigned to ship repair yards for activation.

By the end of the conflict, these ships had sealifted nearly five million troops and passengers and more than 22 million tons of petroleum products to the Far East. This amounted to more than 85 per cent of the fighting forces and equipment used. All this was in addition to MSTs' normal day-to-day commitments in other parts of the world.



MSTs TRANSPORT USNS General Sultan loads passengers at Naha, Okinawa.

MSTs was on hand to supply the landings at Inchon, Iwon and Wonsan. One hundred and ninety MSTs ships were at Hungnam to evacuate 105,000 military men, 91,000 Korean civilians, 17,000 vehicles and 350,000 tons of supplies to UN-held territory.

**K**OREA WAS ONLY the kickoff crisis in a crisis-ridden era. MSTs ships assisted in the sealift of 300,000 Vietnamese who chose to flee with only the meager belongings they could carry, rather than live under communism.

MSTs ships brought to the United States thousands of Hungarian refugees who feared Red reprisals for their part in the abortive Hungarian uprising of 1956.

MSTs ships transported troops and supplies to strengthen the United States' hand during the Berlin crisis and provided transport for the troops of many nations during the UN operations in the Congo.

One of the jobs of which MSTs is particularly proud is its support of posts in the Arctic. In this connection, MSTs has sealifted more than five million tons of cargo to the Far North since 1950, in spite of some formidable obstacles.

**B**ETWEEN 1955 and 1957, MSTs ships carried material to be used in the construction of the Distant Early Warning (DEW) Line radar system which stretches along the fringe of the Arctic Circle across the entire North American continent. This, in spite of some of the worst ice conditions ever recorded in the Arctic.

To be more specific, MSTs sealifted more than one million tons of cargo and building equipment, in addition to a million barrels of petroleum products, to DEW Line sites.

More than 50,000 tons of building material also went to the Air Force's

**FINE FOOD** — Passengers enjoy their meal while traveling via MSTs.





**LONG HAUL** — MSTS ship delivers the goods to men in the Antarctic.

Ballistic Missile Early Warning System (BMEWS) at Thule, Greenland.

Perhaps none of this would have been possible without the experience which MSTS had already picked up during earlier supply operations in the Labrador-Greenland areas.

In 1957, an MSTS task group searched for and found a new Northwest Passage. However, MSTS was not so much interested in a northern water route to the Far East as it was in developing a deep-water passage across the top of North America to be used as a possible escape route for ships threatened by an ice blockage across their usual exits from the Arctic.

The route was by way of Bellot Strait and its approaches from the

west—then on through Rae, James Ross and Franklin Straits. The shallowest point in the entire route was 36 feet.

The route is clear during the summer months and can be traversed with the help of icebreakers during the winter.

**T**HIS YEAR, MSTS marked its 12th consecutive year conducting "Sealift for Security" operations in and around our far northern radar and defense installations.

Greenland, Labrador, Newfoundland and the Baffin and Ellesmere Island areas were visited by units of Task Force Six in operations which brought some MSTS ships within a few degrees of latitude of the North Pole.

This year, the first two ships to venture into the Arctic were USNS *Alatna* (T-AOG 81), a heavily plated tanker built by MSTS with an icebreaker bow, and the Navy icebreaker, USS *Burton Island* (AGB-1). The two ships carried petroleum into Sondrestrom, Greenland.

USNS *Redbud* (T-AKL 398) and USS *Burton Island* repaired the submerged petroleum lines at Sondres-

trom and an MSTS ship will continue to serve as home to men who work in the Far North, just as other MSTS ships have done since operations were begun there.

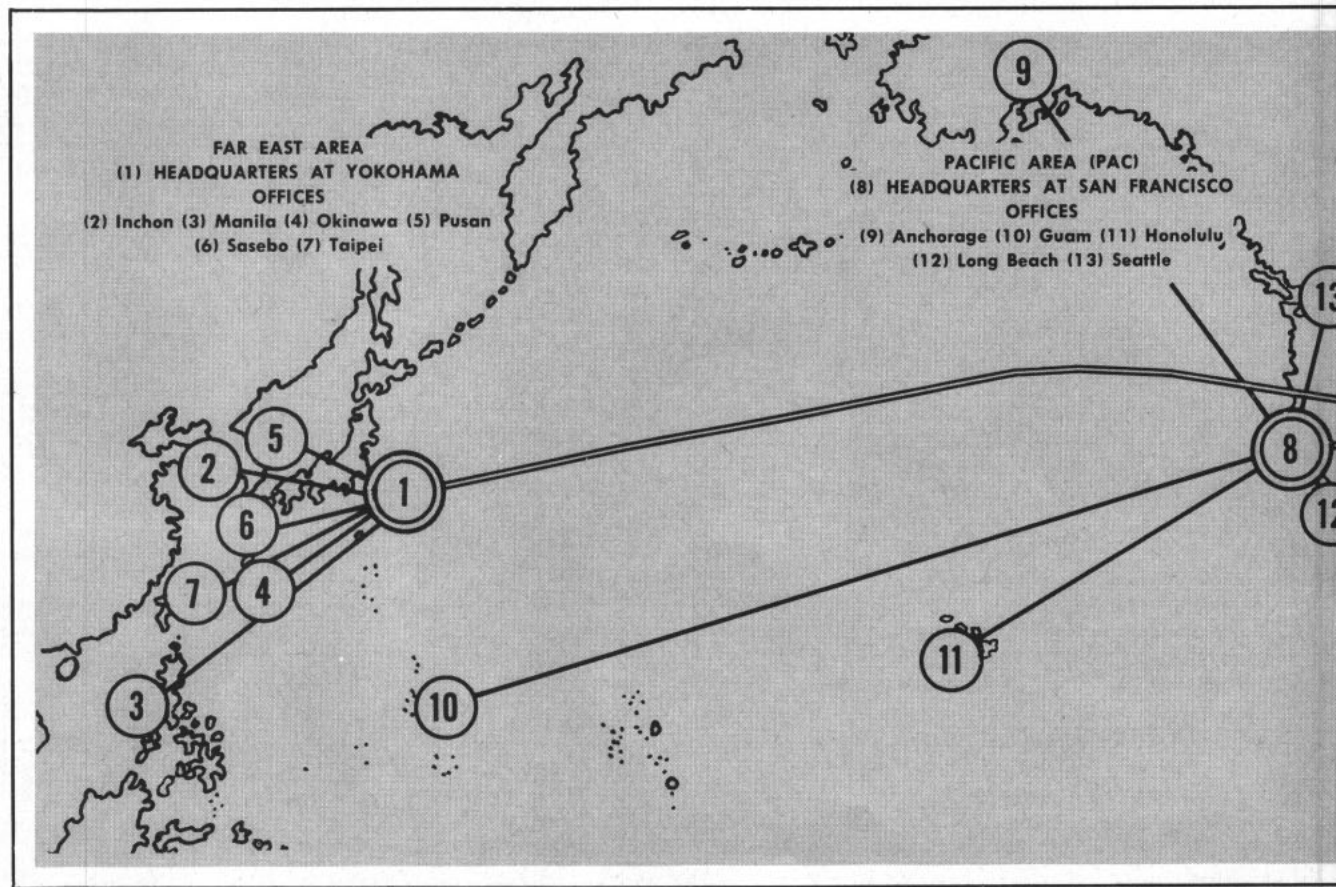
MSTS is rapidly acquiring a considerable fleet of special project ships which are used by those who explore the frontiers of space and who probe the ocean depths.

MSTS ships that support space explorations are used principally for tracking and nose-cone recovery from rockets fired to collect weather and other data from the upper reaches of the earth's atmosphere.

**T**ODAY'S TRACKING SHIPS are converted freighters which have been equipped with telemetry, data-processing and radio instruments as well as recovery facilities for retrieving nose cones.

Some of the tracking and recovery ships now in use owe their present assignments to the inadequacy of earlier range trackers.

For example, the first recovery and tracking ships used by the scientists at NASA's rocket-launching facility at Wallops Island were two small T-1 tankers. They had been





chartered to act as telemetry ships for a series of shots from Wallops Island.

Unfortunately, the worst storm to hit the East Coast in many a year struck without warning in mid-March, with a fury which literally changed the contour of the eastern seaboard of the United States.

Needless to say, the two tankers took a beating. The ships limped back to port after the storm with decks covered by the twisted wreckage of NASA's expensive equipment.

**T**HE LESSON was readily apparent. A ship which was permanently instrumented to track and recover shots from Wallops Island was necessary. USNS *Range Recoverer* (T-AG 2) was selected and sent on duty with NASA in April, following the storm in March.

*Range Recoverer* was not new to the missile tracking and recovery business. Before being assigned to NASA, she had been working on the Pacific Missile Range.

She and six onetime Victory ships, three of which saw service with MSTs as freighters before conversion, now form the MSTs missile

tracking and nose cone recovery fleet.

While the range tracking ships look upward, MSTs' oceanographic ships explore the ocean's depths. There are four oceanographic research ships in the MSTs Fleet. Two of them were converted to serve their present purpose and two, USNS *Davis* (T-AGOR 5) and *Gillis* (T-AGOR 4) were built from the keel up as research ships. Lead ship of this type is *Gibbs* (T-AGOR 1), a converted small seaplane tender.

USNS *Eltanin* (T-AGOR 8) is a good representative of the MSTs research ship and is an example of the cooperation which exists between MSTs and other government agencies.

In *Eltanin's* case, the other agency is the National Science Foundation, which sponsors the Antarctic research program to which *Eltanin* has been assigned.

MSTs converted *Eltanin* into a floating laboratory to meet the requirements of the National Science Foundation's Antarctic research program. NSF scientists, together with the scientists from five universities, one college, a research foundation



**TO FREEDOM**—Hungarian refugees celebrate as MSTs sails for USA.

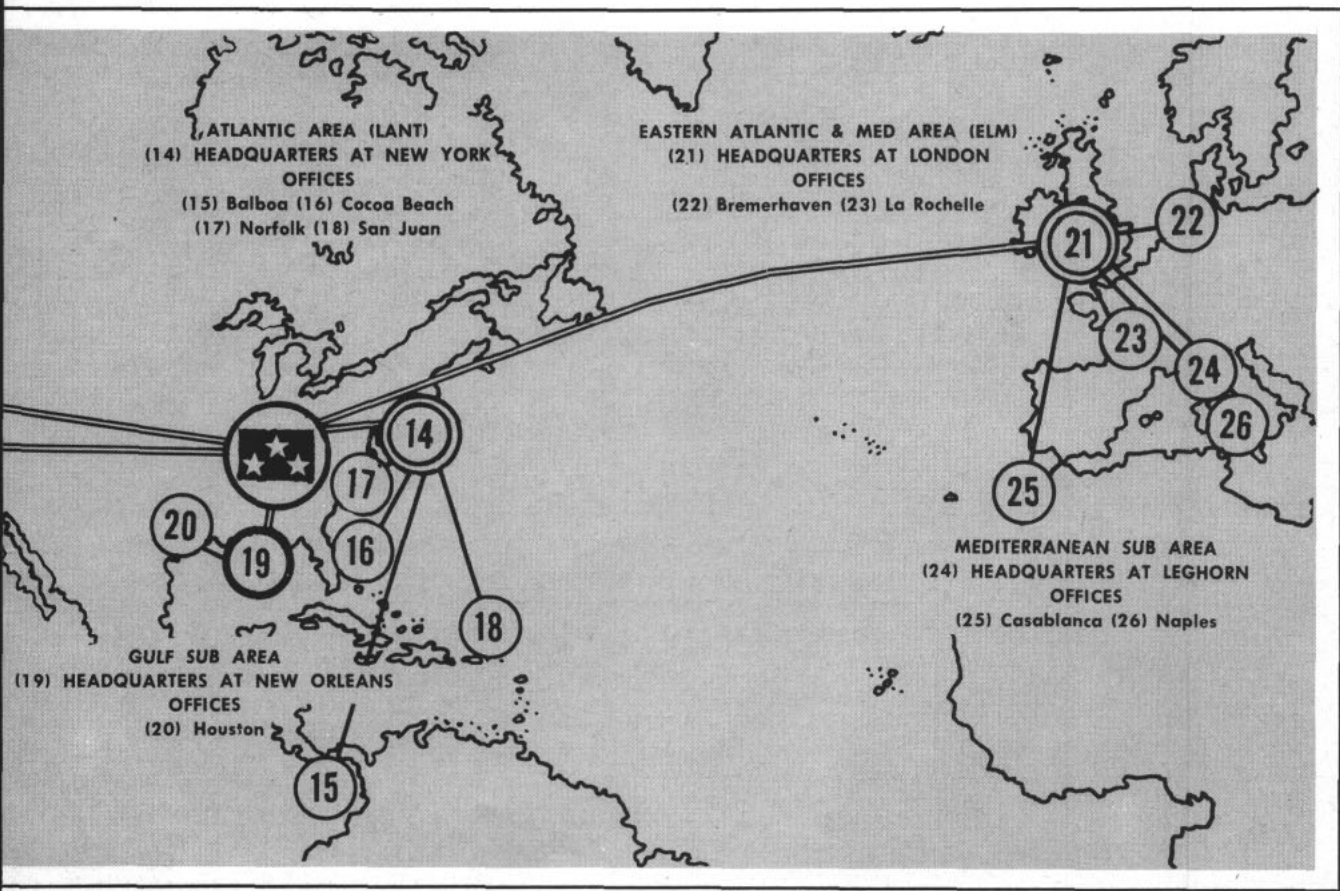
and a museum, conduct observations of the ocean's water and the ocean floor.

They also study marine biology, submarine geology and meteorology, and do astrophysical research.

To be sure she would stand up against the rigors of Antarctic weather conditions, *Eltanin* left New York harbor, after she was fitted for her special work, to seek out bad weather. She found it off Labrador, where her unusual stability, provided by special rolling tanks, was tested.

The ship, by now a veteran, has an ice-strengthened bow and heavy hull. The data which she collects will be of immeasurable value to the Navy.

—Robert Neil.



# LETTERS TO THE EDITOR

## LvRats, ComRats

SIR: I am assigned to an afloat command, which has a flagship, but for administrative purposes certain members of the command, including myself, are stationed ashore. We do not draw sea pay except when we are actually aboard the flagship for eight or more days.

SecNav Notice 7220 of 28 Dec 1961 (Alnav 60) states that commuted rations and leave rations at the rate of \$1.20 per day are payable to those persons prohibited sea and foreign duty pay by paragraph 044060-2B (3) of *NavCompt Manual*.

I'd like to know how much leave rations/commuted rations we should be drawing. — B, Y.D., CSCA, USN.

● In accordance with subparagraph 044060-2a (3) of "NavCompt Manual," when you are temporarily aboard the flagship for eight or more consecutive days you would get sea pay for the full period; if you spend less than eight consecutive days aboard, you get no sea pay.

Now, we assume you wish to find out the correct rates for LvRats/ComRats both for when you are aboard the flagship and when you are ashore—but first, let's get our authority straight. You have erroneously cited subparagraph 044060-2b (3), "NavCompt Manual" as having been mentioned in Alnav 60,

## On-the-Job Training

SIR: I am converting from CS2 to EM2 under the SCORE Program. I now have my orders to Class "A" school for electricians.

Upon successful completion of this course, it is mandatory that I have one year of on-the-job training.

I have enough sea time to place me on Seavey either as an EM2 or CS2. Does this one year of on-the-job training have to be done as sea duty or am I eligible for shore duty? — W. J. S. CS2, USN.

● There is no regulation specifying that the one-year period of on-the-job training be served on shore or at sea, as long as it is EM type duty.

However, Class "A" School graduates are usually sent to sea where their training may best be utilized (Art. 12.82d, "Enlisted Transfer Manual").

This is because shore duty billets are normally filled four months in advance, whereas students become available only after the successful completion of their courses. — Ed.

This section is open to unofficial communications from within the naval service on matters of general interest. However, it is not intended to conflict in any way with Navy Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address letter to Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel, Navy Dept., Washington 25, D.C.

whereas the subparagraph actually referred to in Alnav 60 is 044060-3b (3).

The question of which ration rate is applicable is easily determined. When you are entitled to sea pay or foreign duty pay for a particular day, the LvRats/ComRats rate for that day is \$1.20. If you are not entitled to either sea pay or foreign duty pay for a particular day, the ration rate for that day is \$1.07, with this exception: if your home of record is Alaska, Hawaii, or a possession of the United States, you are not entitled to foreign duty pay while stationed at your home of record. In such cases, however, the LvRats/ComRats rate is \$1.20 per day. — Ed.

## No Duty With Foreign Navies

SIR: Not long ago, you ran several articles on the Royal Navy which I found very informative. It was interesting to compare our Navy with the British Navy from which much of our tradition springs.

I have a question which you might be able to answer for me. Is it possible for a United States Navy enlisted man to request exchange duty with the British Navy?

I would like to go on a cruise similar to our Med cruise but in a British ship.

When I was stationed at the Damage Control Training Center at Philadelphia, there were many foreign students attending the school, too. I liked to talk to them and compare our Navy with theirs. I'd like to serve with them on a cruise. — C. M. B., Jr., YN2, USN.

● Your idea is an interesting one and, as you may already know, has been practiced (although not exactly in the same manner as you suggest) in ASW forces such as Task Group Alfa.

The Navy feels that such an exchange promotes a better understanding of the other fellow's problems and increases mutual cooperation and support—important elements in groups composed of mixed forces.

At the present time, however, the U. S. Navy doesn't consider it necessary to set up a personnel exchange program on an international basis. — Ed.

## DD to DD Refueling?

SIR: Recently during Springboard Exercises a unique feat was performed by Destroyer Squadron 24. *uss Blandy* (DD 943) provided a substantial amount of fuel for *uss Charles S. Sperry* (DD 697). A refueling rig devised by Chief Boatswain's Mate Frederick W. Heitmann, USN, aboard *Sperry* was used for the destroyer to destroyer refueling.

This refueling rig consisted mainly of the regular highline gear with a trolley to carry the end of the hose to the refueling ship. The usual inhaul and outhaul lines were used. Extra saddles were made to carry the hoses and spacer lines were used between the saddles.

The ships received a well done from the squadron commander and Chief Heitmann was presented a letter of commendation for the exercise which proved the feasibility of destroyer to destroyer refueling.—G. R. Savage, ENS, USNR.

● As a rule we try to avoid the word "unique," but it may be that your exploit was truly "being without a like or equal—single; sole." *BuShips* seems to think so because our man there tells us that he had never heard of destroyer to destroyer refueling.

Although the incident you cite certainly does prove that such refueling is

## Port Island

SIR: On page 60 of your July issue, you have a picture of an aircraft carrier. All of us old tailhook sailors are curious as to the class of this ship. Nobody here has seen a carrier with an island on the port side. — Charles A. Bosarge, ATCA, USN.

—Has the U. S. Navy ever built a carrier with the island on the port side? — R. L. Riley, MM2, USN.

—It has caused a great deal of comment around the Naval Ammunition Depot at Concord, Calif. — P. P. Moore, GMCC, USN.

● The carrier pictured on page 60 of the July 1962 *ALL HANDS* is rare. It belongs to the reversed negative class.

It is for left-handed pilots who fly backwards in order to arrive at their destination before they depart.

If there are others in the class, their existence is so secret that their pictures have not been published in the pages of *ALL HANDS*. We hope, we never see this one again. — Ed.



possible, we can't help but wonder about some of the details. DDs are not normally equipped with refueling gear. Where did Sperry obtain her hose and pumping equipment? Our BuShips source tells us that it might be possible, in an emergency, to use fire hose and pumping equipment already on board, but this would probably only provide enough fuel to sustain a destroyer during the actual transfer, but could not provide enough to increase the amount of fuel in her tanks. If not fire hose, what then? If it was fire hose, who cleaned it, and how, after the transfer? We don't know; we're asking. You were on the scene and we weren't.

Other destroyermen would no doubt be interested in further details if you or some Sperry or Blandy crewmen could provide them.—Ed.

### Origin of Tattall

SIR: DDG 19, now under construction in Westwego, La., will be named *uss Tattall*. I would appreciate any information on the man for whom the ship will be named.—W.R.F., ENS, USN.

● *Tattall* will be named after Captain Josiah Tattall, USN, and CSN. CAPT Tattall was born in Bonaventura, near Savannah, Ga., in 1795, and was appointed midshipman in the U. S. Navy on 1 Jan 1812. He advanced to the rank of captain on 5 Feb 1851, but resigned his commission at the outbreak of the Civil War to serve in the Confederate Navy.

In 1813 at the age of 18, he was stationed aboard the frigate *Constellation* and that year, when the British attacked Craney Island, near Norfolk, he was a member of the seamen's battery which drove off the British squadron and captured several barges.

On 24 Aug 1814 he commanded a force of the employees of the Washington Navy Yard who took part in the Battle of Bladensburg. Later in the same year, he was ordered to the *uss Epervier*, then fitting out for the Mediterranean Squadron, and took part in the operations against the Barbary States.

While commanding officer of *uss Grampus* in 1831, he captured the Mexican war schooner *Montezuma*, which earlier had boarded and robbed an American schooner on the high seas. He also had a prominent part in the attacks on Vera Cruz, San Juan d'Ullea and Tuxpan during the Mexican War.

While commanding the East India Squadron in June 1859, he won an international reputation for a dispatch he sent to the Secretary of the Navy.

The river steamer *Toeywan* had been chartered to take the American Minister up the Pei-ho river to Peking to ratify a treaty with the Chinese government, but Chinese authorities at the Taku forts had refused to let British and



FLIGHT DECK HANGOVER—*USS Saratoga* (CVA 60) enters Norfolk Naval Shipyard's largest drydock, which carrier clears by only three feet.

French ships preceding *Toeywan* go up the river. When the British and French attacked the forts and seemed to be losing, CAPT Tattall went to the aid of the British.

In defense of his action he used the expression "Blood is thicker than water," in his dispatch to the Secretary of the Navy to justify his violation of American neutrality. This statement won fame for CAPT Tattall, and is popularly associated with him. However, he did not originate the phrase.

After he resigned from the U. S. Navy in 1861, he was commissioned a captain in the Confederate Navy, and in 1862, succeeding Captain Franklin Buchanan, commanded the naval defenses of the waters of Virginia, his flag in the *css Virginia* until her destruction on 11 May 1862. He died in 1871.

DDG 19 is the second Navy ship to be named *Tattall*. The first *uss Tattall* (DD 125) was built in 1918 and served in World War II in both the Atlantic and Pacific.—Ed.

### Kontradmiral Jones

SIR: If you really want to start an argument, bet someone that neither David D. Porter nor David Glasgow Farragut was the first U.S. naval officer to reach the rank of rear admiral. Be careful, however, that you state the conditions correctly.

Actually, John Paul Jones was an admiral many years before Farragut. The catch is, Jones was an admiral in the Imperial Russian Navy and Farragut was an admiral in the U.S. Navy.

Catherine the Great, Empress of Russia, appointed Jones a captain with rank of major general on 15 Feb 1788. Jones later hoisted his flag as a rear admiral in command of a Russian squadron.

You can find authority for this statement in Lincoln Lorenz's *John Paul Jones*, page 569, published in 1943 by the U.S. Naval Institute.—LCDR ARNOLD S. LOTT, USN (Ret.).

● A nice distinction and one which

will undoubtedly generate much heat, and some light, in bull sessions.

A copy of Lorenz was not immediately available, so we turned to Samuel Eliot Morison for confirmation. (We believe you, of course, but we like to check, just in case.) According to "John Paul Jones—A Sailor's Biography," he was made "Captain of the Fleet with rank of Major General" in the Russian navy early in 1788 (no specific date is given). On 15 Apr 1788, however, the Empress made him a rear admiral.

The first rear admiral in the U.S. Navy was David Glasgow Farragut, appointed in 1862. Farragut was appointed vice admiral in December 1864 and admiral in July 1866.

In the Russian navy, Jones was known as Kontradmiral Pavel Ivanovich (Paul, the son of John) Jones. In court circles, it was Contre-Amiral Paul-Jones.—Ed.



**LAUNCH IN PORT** — An S2F Tracker is catapulted from USS Bennington (CVS 20) while moored at San Diego, during demonstration for civic group.

### First in Bay of Roses

SIR: In your June 1962 issue I read about the first which may not have been a first—the visit of USS *Duxbury Bay* (AVP 38) to Basra, Iraq. Now, I'd like to tell you about an event which I am fairly sure really was a first.

In September 1955, I was serving in Mine Division 82 in the Med. One day, while we were en route from Barcelona, Spain, to sweeping operations, a bad storm erupted, and we were forced to head posthaste for the protection of the nearest harbor.

You know how it is—any old port in a storm. We pulled into the Gulf of Roses (or Rosas), on the Spanish coast near the border of France. Unfortunately, there was no liberty granted during our stay there, for I would have enjoyed exploring the country thereabouts, and visiting the small town which was visible about a mile from where we were anchored.

At any rate, since the Gulf of Roses is not a regular port of call for U. S.

Navy ships, I feel pretty certain that we are the only ones to have put in there. — R. W. Gilman, YN2, USN.

● *By Woden's whiskers, won't they ever learn?*

*Okay, Yeoman Gilman—duck, and don't say we haven't warned you. And, just for a starter, what makes you think your storm was the only storm that's ever hit that particular section of the Med while a U.S. ship was in it?* — Ed.

### Another Record Goes Overboard

SIR: Claims of record fuel rigging times are frequently made, but USS *Charles P. Cecil* (DDR 835) asks if any ship has spent less time alongside to complete a fueling operation.

Fueling in the Sixth Fleet from USS *Allagash* (AO 97), *Cecil* was alongside only 14 minutes, 15 seconds. During this time, she received 468 barrels of fuel oil and transferred movies and mail. The time was measured from the first bolo in hand to the last line cast off.

In the same fueling, *Cecil* broke the

record rigging time for ships fueling from *Allagash*. Two minutes and 10 seconds after the first light line was received, both fueling stations were receiving fuel oil, and the highline was in use. *Allagash's* previous record of three minutes had also been set by *Cecil*, four months earlier. — C. P. Rozier, CDR, USN, Commanding Officer.

● *As you know, Captain, you are leaving yourself open to Fleetwide comment, so stand by. We think Cecil should be commended for the operation, however, whether it's a record or not.* — Ed.

### Boats and Best Friend

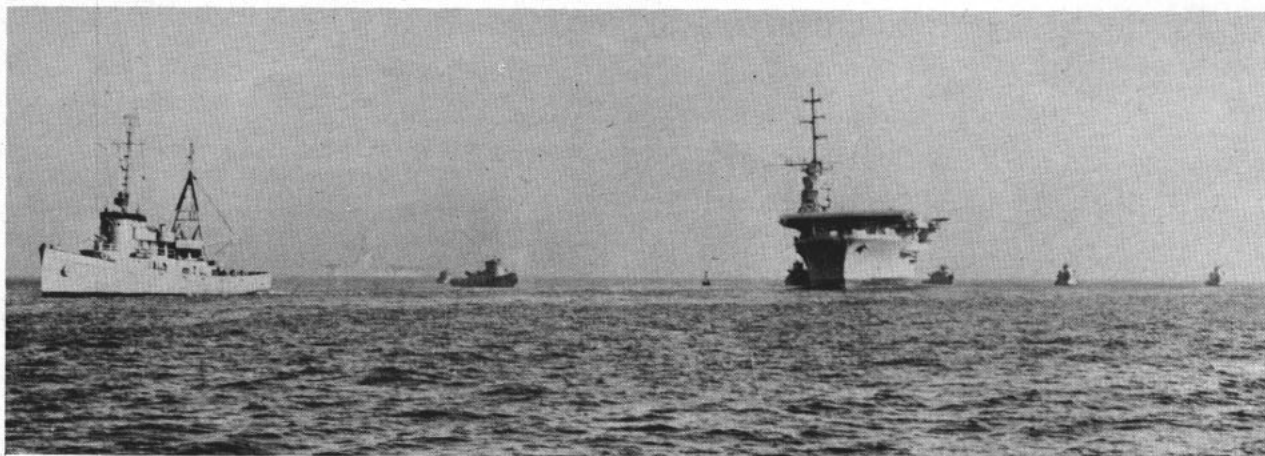
SIR: I would appreciate any information at your disposal concerning a school for dog handlers or sentry instructors. I'm on overseas service, and am due to be rotated to U. S. shore duty in a few months.

For a year and a half I attended a dog handlers' school during my off-duty hours. The school is a civilian type, operated by the French in Port Lyautey, Morocco. I completed the course, or, I should say, my dog and I completed the course recently, and have since won a championship certificate issued by the Moroccan government for competition with dogs and handlers from schools throughout Morocco.

Training courses required for U. S. sentry dogs are surprisingly similar to the curriculum of the school we attended. Is there any possibility I might be assigned to a sentry dog school upon completion of my overseas tour? If not, how are my chances for assignment to a station that uses dogs for security purposes?

Any information you have will be greatly appreciated. My dog, incidentally, is a full-blooded German shepherd. He's a mighty fine animal. — J.E.C., BM2, USN.

● *Sorry, Boats. The Navy does not sponsor training courses in dog handling. But, here's some news that may cheer you and your canine companion. As you know, you've been made avail-*



**MIGHTY MITE** — USS Chowanoc (ATF 100) shows her muscles towing former ASW carrier *Philippine Sea* (CVS 47).



able for assignment to the 12th Naval District. As a result of your letter, the Enlisted Personnel Distribution Office, Continental U. S., has been advised of your special qualification as a dog handler.

EPDOCONUS is screening all activities in the U. S. to find out if a billet for a dog handler is available. If there is a billet, you will get the nod, even if it's not in the 12th Naval District. If a billet is not available, you can expect rotation to a general shore duty billet in 12ND.

Congratulations on your successful competition in Morocco. ALL HANDS would enjoy hearing from you when you receive your orders from EPDOCONUS. We'd like to see your story have one of those good old happy endings. — Ed.

#### More on Laws

SIR: Your article "Nine Battle Stars for Laws" in the July 1962 ALL HANDS Letters to the Editor section took USS Laws (DD 558) from 1945 to 1961, with the statement she was placed out of commission 24 Sep 1945 and reactivated in October 1961. What happened to her Korean conflict record, and those post-Korean years to 1958? She did a fine job in the Far East as a member of DESDIV 72 until transferred to the Reserve Fleet in 1958.

Since that time, Laws has been taking Reservists on regular training cruises with quite a measure of success.

I did not serve in Laws, but I was in the same division ('55 and '58). Stand by when those who served on board her and know her history best read your article. — J. J. Hootman, LT, USN.

● We didn't stand by for long. See below. — Ed.

SIR: At least one interesting chapter in the history of USS Laws (DD 558) was passed over by ALL HANDS in the

### Ship Reunions

News of reunions of ships and organizations will be carried in this column from time to time. In planning a reunion, best results will be obtained by notifying the Editor, ALL HANDS MAGAZINE, Room 1809, Bureau of Naval Personnel, Navy Department, Washington 25, D. C., four months in advance.

● USS Idaho (BB 42)—The sixth annual reunion will be held at the Lafayette Hotel, Long Beach, Calif., on 19-21 July 1963. For complete details, you may write to David C. Graham, SMCS, USN, P.O. Box 8048, Norfolk 3, Va.

● USS New Mexico (BB 40)—The fourth annual reunion will be held on 17 November at the Long Beach Elks Club, Long Beach, Calif. For details, write to Joe Allegretti, 1228 N. Broad-

way, Apt. 4, Santa Ana, Calif.

● USS West Virginia (BB 48)—The eighth annual reunion is scheduled for 8 December at the VFW Hall, Gardena, Calif. Additional information may be obtained from R. A. Brown, VFW Hall, 1822 W. 162d St., Gardena, Calif.

● USS Wadsworth (DD 516)—A reunion is being planned for August 1963 in the Chicago area. For details, write to W. S. Mandel, 5011 Elmhurst, Detroit 4, Mich.

● World War II Veterans—A reunion for men who were at Pearl Harbor or in the South Pacific on 7 Dec 1941 will be held in Dallas, Texas, on 7, 8 and 9 Dec 1962. For further details, write to Pearl Harbor Veterans, P.O. Box 3902, Station A, Dallas 8, Texas.

July 1962 letters section ("Nine Battle Stars for Laws," p. 29). You indicated she was not active from 24 Sep 1945, when she was placed out of commission, to October 1961, when she was called up under the emergency reactivation program. Laws, in fact, saw plenty of action in between.

Recommissioned in late 1951, Laws served an eight-month tour in WestPac, during which she earned the China Service Medal, the National Defense Service Medal, the Korean Service Medal with two battle stars, and the United Nations Service Medal. She was bomblin commander for several weeks; made various sweeps (undergoing enemy fire and destroying the enemy battery with counter fire in one Korean port); destroyed gun emplacements, machineguns, pillboxes, and other targets near the bomblin; and shot up at least one train. She also served as a unit

of the Taiwan Strait patrol.

I was relieved of command of Laws in the fall of 1953, and next encountered her in 1959. She was placed under my operational control (COMDESDIV 192) for a few days during a West Coast amphibious exercise. She was still in commission as a Naval Reserve ship, and was still operating with her old speed, dash and smartness. I believe she was to be deactivated (after recall last year) in August 1962. — W. Y. Howell, CAPT, USN, CO, USS Sandoval (APA 194).

● Thanks for filling in the empty years. The ship's history on which ALL HANDS based the July report on Laws, apparently didn't go far enough.

Incidentally, in rechecking Laws' history, we also discovered that after World War II, she remained in commission until December 1946—not September 1945, as we had implied. — Ed.

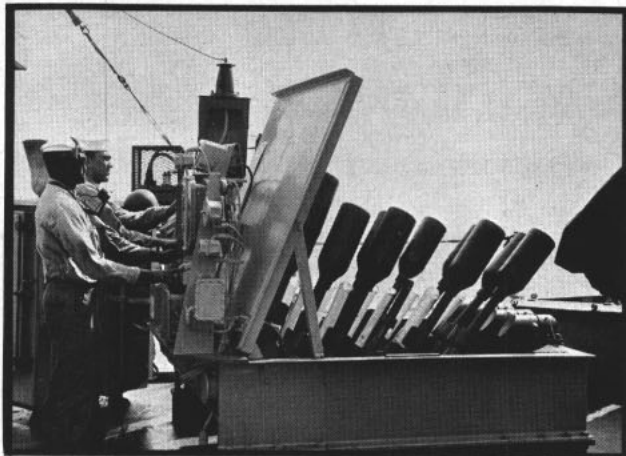
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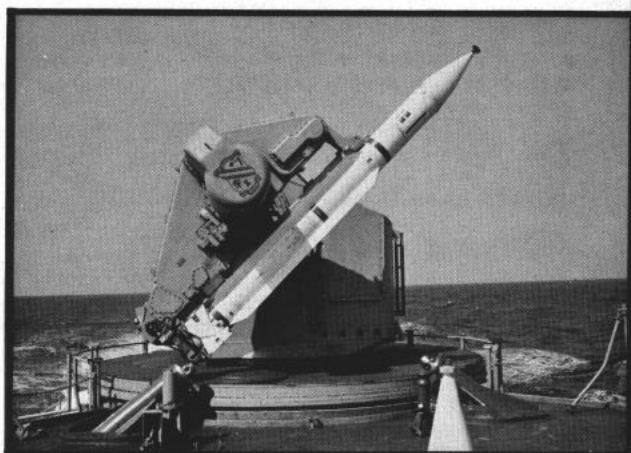
**HEDGEHOGS**—Sonar target contact provides fire control information for a hedgehog attack. The mortar-type projectiles are fired electrically in a pattern of twenty-four charges. They must score a direct hit on a submarine to explode.



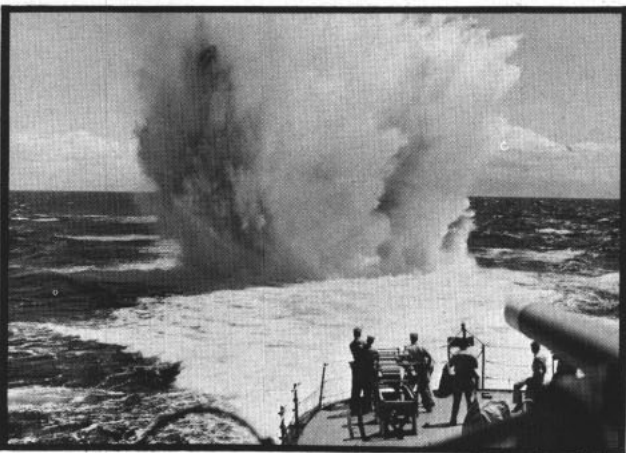
**DASH** (Drone AntiSubmarine Helicopter)—This remote-controlled helicopter is able to carry one or two acoustic homing torpedoes to a target contact point, drop when ordered, and return to the mother ship while the torpedoes seek their targets.



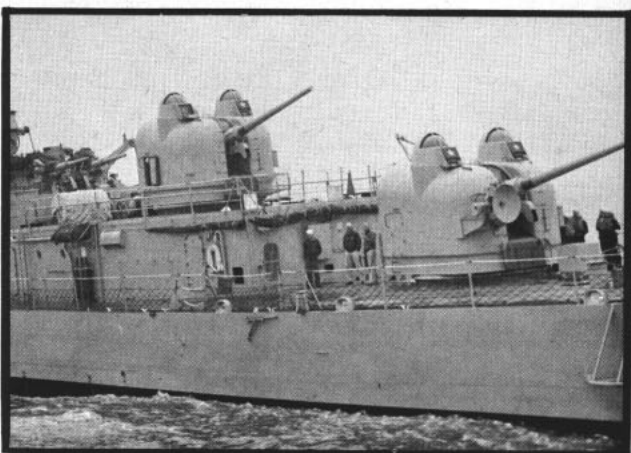
**ASROC** (Antisubmarine Rocket)—Asroc is a surface-to-underwater, solid propellant, rocket-thrown torpedo. Fired from the above launcher, it follows an aerial trajectory to the target area and homes in acoustically. A nuclear depth charge payload can be used.



**TARTAR**—Smallest of the surface-to-air series, Tartar is designed for destroyer type ships. It is effective against both low- and high-altitude targets. Powered by a dual thrust, solid propellant rocket motor, its range is more than 10 miles.



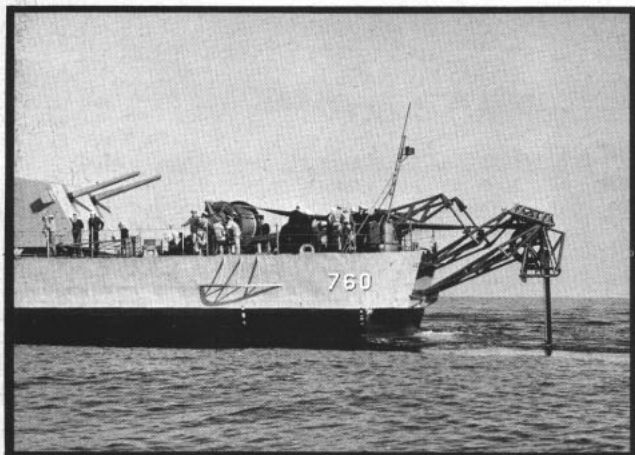
**DEPTH CHARGES**—Long the scourge of enemy submarines, depth charges are fired from 'K' guns or dropped (above) into the target area. They destroy by the concussion of their underwater explosions and need not make a hit to cripple a sub.



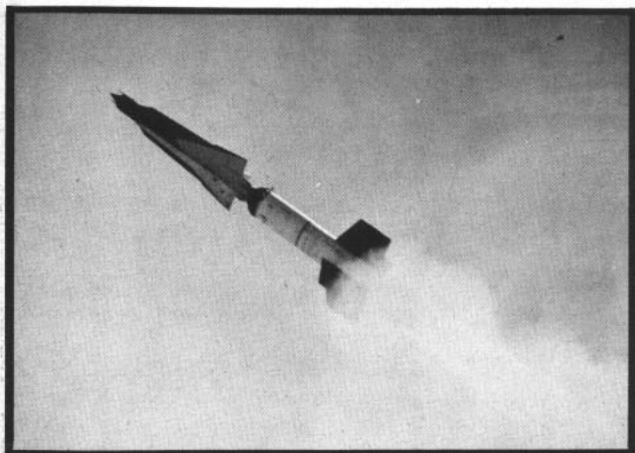
**FIVE-INCH GUNS**—The new rapid-fire, fully automatic-loading, radar-controlled single mount 5-inch/54 (on USS Forrest Sherman) replaces main-battery 5-inch/38 used for salvos at surface targets, shore bombardment and AA barrage in WW II.



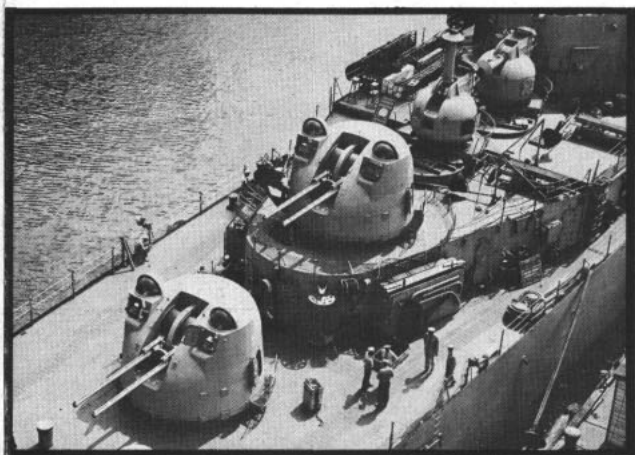
# the DD NAVY



**VARIABLE DEPTH SONAR (VDS)**—A one-ton sonar dome is trailed behind the ship and controlled by the cable from the reel above. It can be trailed at any reasonable depth and can penetrate thermal layers to seek out submarines.



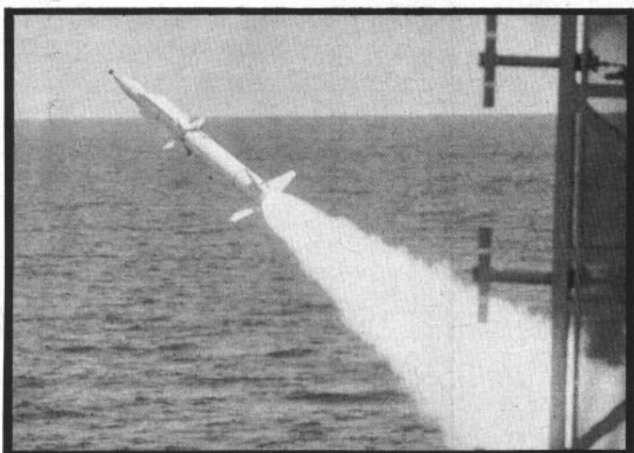
**TYPHON**—Typhon will employ advancements of Super Talos program (long range Typhon) and Super Tartar (medium range Typhon). The former will use solid fuel rocket booster and ram-jet sustainer. The latter will employ dual thrust solid rocket motor.



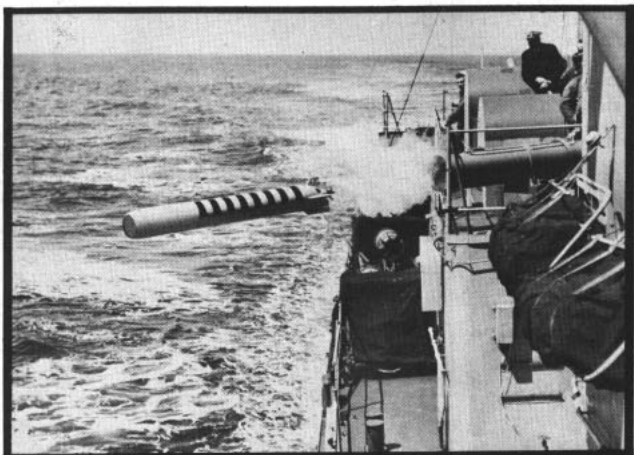
**THREE-INCH GUNS**—The 3-inch/50 is being replaced by the new, longer range 3-inch/70 (twin, dual purpose mounts, shield enclosed, shown here on *USS Norfolk* DL 1). Twin guns can be fired separately or simultaneously, with single or continuous fire.



**WEAPON ALFA** (formerly *Weapon Able*)—Alfa is a surface-to-underwater rocket fired from a launcher resembling a conventional gun turret. The turret can be trained in an almost complete circle and is aimed by a special fire control system.



**TERRIER**—This supersonic surface-to-air solid fuel missile can soar higher than antiaircraft fire to a range of 20 miles. Controlled by a radar beam, *Terriers* have a length of about 27 feet with booster and weigh about one and a half tons.



**LAUNCHED TORPEDOES**—Today's torpedoes may be fired from a fixed-tube mount (seen here) or flung over the side from an open launcher. With advanced guidance, such as the acoustic homing torpedo uses, these torpedoes need no longer be aimed.

# ★ ★ ★ ★ TODAY'S NAVY ★ ★ ★ ★



TO STARBOARD — Canada's *HMCS Bonaventure* passes *USS Newport News* (CA 148) moored at Halifax, Nova Scotia, Canada, for a short visit.

## Three New Subs

To the delight of the champagne makers, three new nuclear-powered submarines were launched in one day last August. *Alexander Hamilton* (SSBN 617), *Haddo* (SSN 604) and *Dace* (SSN 607) were eased off their construction ways during ceremonies in three cities.

At Groton, Conn., *Alexander Hamilton*, equipped to handle the 2500-mile *Polaris* A-3 missile now under development, splashed into the Thames. She is fitted with special computers to be used when a fix-from-space system becomes operational. (Four navigation satellites in polar orbits at altitudes of 600 miles will feed signals into shipboard computers which translate the signals

into definite position fixes.)

*Alexander Hamilton* is the second *Polaris* missile submarine of the *Lafayette* class. The first was *Lafayette* (SSBN 616).

Launched at Pascagoula, Miss., was the attack submarine *Dace* of the *Thresher* class.

At Camden, N. J., another *Thresher*-class sub was christened *Haddo*.

*Dace* and *Haddo* are 279 feet in length and displace 3750 tons (standard displacement). Their launchings boosted the number of waterborne attack nuclear subs to 22, 16 of which are in commission. Nine others are under construction, and eight more have been authorized under the fiscal year 1963 shipbuilding budget.

## Gorch Fock Visits

Early this year, New York harbor was treated to an unusual sight, even for New York harbor. There, at the foot of the Statue of Liberty, passed a 240-foot windjammer under full sail, cutting majestically through the water like a proud queen.

She was *Gorch Fock*, the German Navy's training ship and the first German naval vessel to enter New York harbor since 1936.

The harbor gave *Gorch Fock* its traditional welcome with whistles blowing, sirens growling and fireboats spouting fountains of water.

Pier employees watched in amazement as *Gorch Fock's* crewmen ran nimbly up the rigging and seemed to hang in midair above the water as they quickly reefed the sails.

Traffic on the West Side Expressway came to a halt as motorists discovered a windjammer occupying the berth usually reserved for the somewhat larger *ss United States*.

Every officer of the German Federal Navy is now required to take a cruise in *Gorch Fock*. So far, 1400 have done so.

*Gorch Fock* is a three-masted, steel-hulled bark which displaces 1860 tons. She has 1950 square meters of sail and has an auxiliary 800 hp engine just in case of a calm day.

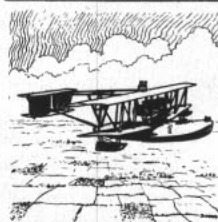
With the engine, she can attain a speed of 10 knots and has a range of 1900 sea miles.

The windjammer is equipped with 20th century safety features. She has two radar sets mounted in such a manner that they can scan her surroundings both ahead and astern. She also carries a meteorologist and a complete meteorological station.

The ship is divided into seven compartments by means of six watertight bulkheads. Her keel carries fixed iron ballast and her hatches and deck openings are so designed that water will not get in, even at maximum heel.

*Gorch Fock* was in New York for a week during which time *uss Essex* (CVS 9) returned the warm hospitality she had received while visiting Hamburg in January.

## YESTERDAY'S NAVY



On 4 Nov 1942 United States cruisers and destroyers bombarded Japanese positions near Koli Point, Guadalcanal. On 8 Nov 1942 Allied forces invaded North Africa. On 8 Nov 1861 the U. S. frigate, *San Jacinto* stopped the British steamer *Trent* and seized Confederate commissioners who were on board. On 12 Nov 1942 the naval battle of Guadalcanal opened as transports unloaded troops at Lunga Roads. On 12 Nov 1942 a U. S. naval operating base was established at Casablanca. On 25 Nov 1918 the NC-1 Flying boat carried 51 persons in flight for a new world's record.



*Essex*, at the time of the sailing ship's visit, was drydocked at New York.

While *Gorch Fock* was a guest, *Essex* provided a German-speaking officer who lived aboard and acted as liaison officer. He was aided by several of *Essex's* German-speaking enlisted men who handled the training ship's busy switchboard.

The windjammer was opened for public inspection and *Essex* men found New Yorkers as curious about a sailing ship as the Germans had been about *Essex* when she visited Hamburg. Again, *Essex* men were on hand to direct the crowd.

The German crew members had a busy week in New York and its environs. They enjoyed what amounted to a busman's holiday by taking the trip around Manhattan by boat.

They visited West Point, the United Nations and Rockefeller Center. There were also parties and dances.

In case you are wondering why sailors of the 20th century are training on a 19th century type ship, here's the *Gorch Fock's* explanation:

Most floating units in the German Federal Navy are small and have to operate in waters where navigational and meteorological difficulties abound.

This fact alone calls for particularly high standards of seamanship on the part of the comparatively young men who command these small units.

Training in a sailing ship is better than any other type of training for attaining these standards. It makes a man familiar with the sea, develops a feeling of dependence on wind and weather and it accustoms the men to working closely with their comrades.

It instills toughness and courage because the crew members have to throw themselves into their jobs in all kinds of weather. It develops personalities with the power of decision and character traits necessary in an officer at sea.

### Remember This Sea Duty?

Once upon a time there were some U. S. sailors who drew some pretty unusual sea duty—well, at least it was called sea duty and it was in boats and on water.

One of the things that made this sea duty less ordinary than other sea duty was that, when a Navyman



**DECKED OUT** — A 'yellow shirt' directs an A3D Skywarrior to port cat aboard *USS Franklin D. Roosevelt* (CVA 42) during training cruise.

stood on deck and looked from port to starboard, he could see, instead of water, water everywhere, craggy peaks topped with turreted castles in which a wicked bishop was once consumed by rats and travelers were incarcerated by greedy barons.

The reason the sailors were able to see such unusual scenes on this sea duty was because they weren't on the sea at all; they were on the River Rhein in the Rhein River Patrol.

These sailors sailed their little ships up and down the River Rhein looking for navigation hazards which could easily have caused considerable inconvenience to U. S. troops in Germany during the touchy era immediately following World War II.

The little ships still sail up and down the River Rhein but they are no longer operated by American sailors pulling a lucky bit of sea duty.

They are now manned by soldiers of the Federal German Army under the command of the 706 Regimental Headquarters, Mainz, and are divided up among three companies of Rhein River Engineers.

The little craft are used in the territorial defense program and for logistical support of NATO and territorial troops all over West Germany.

The three companies, each composed of 300 officers and enlisted men equipped with nine PT boats and 12 landing craft, are located at Shierstein, Koblenz and Karlsruhe.

The river craft were transferred to the German government in 1958. German soldiers were trained by U. S. sailors and received further in-

struction from the French Ecole de Pilotage. Several of the Army sailors obtained pilots' licenses.

The German soldiers now train in demolitions, minelaying, bridge construction and other aspects of sea-going engineering. They take an annual seven-week training cruise on the Baltic Sea.

When the small craft aren't working, USN alumni can still see them moored at Shierstein near Wiesbaden.

They look about the same as when they were manned by the U. S. Navy. However, the craft are now painted green instead of gray and bear the iron cross instead of the United States ensign.

### Second Polaris Squadron

The Navy's second *Polaris*-firing submarine squadron has been commissioned in Groton, Conn. It's SUBRON 16, to be homeported in Charleston, S. C.

New *Lafayette*-class subs will make up the squadron, along with the submarine tender *uss Hunley* (AS 31).

The first sub assigned to the new squadron will be the one for which the class is named, the 7000-ton *uss Lafayette* (SSBN 616). Others scheduled for commissioning and addition to the squadron between April and November 1963 are: *Alexander Hamilton* (SSBN 617), *Andrew Jackson* (SSBN 619), *John Adams* (SSBN 620), *James Monroe* (SSBN 622), *Nathan Hale* (SSBN 623), *Woodrow Wilson* (SSBN 624) and *Henry Clay* (SSBN 625).

## Windlass Is Big Help

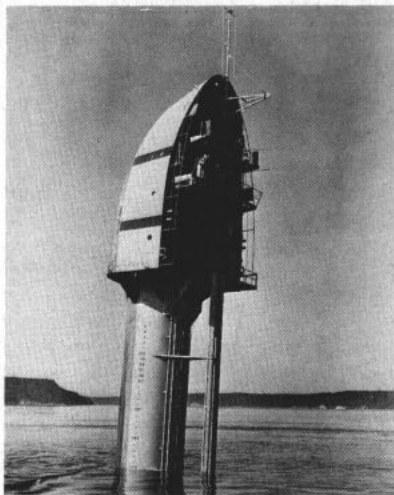
The 54 enlisted men and five officers assigned to the salvage lifting ship *uss Windlass* (ARSD 4) can be sure there are not many U. S. Navy ships with a job like that of *Windeelloo*.

One of two salvage lifting ships in commission, *Windlass* is on call 24 hours a day and has answered calls for assistance in the west and north Atlantic, east coast of the U. S., Gulf of Mexico, and Caribbean Sea. During her career, *Windeelloo* has laid cables, done oceanographic survey work, conducted towing operations, refloated sunken and grounded ships, and recovered crashed aircraft, including one blimp. She was one of the salvage ships that helped refloat the battleship *Missouri* when that ship ran aground in 1950 at Norfolk, Va.

Both this year and last, she won the Battle Efficiency "E," and in 1962 also received the Engineering "E."

*Windlass* assisted in refloating the grounded destroyers *uss Baldwin* (DD 624) at Montauk Point, N. Y., in 1961, and *uss Monssen* (DD 798) at Holgate, N. J., in 1962. For these operations, the crew received SecNav commendation medals.

Built at Houston, Tex., in late 1945, she was originally designed as a medium-class landing ship. But the design was altered on the drawing boards and she became one of the four original ARSD types. Modifications to the basic design included the adding of two horns to the rounded bow, moving the superstructure all the way aft, strengthening the hull, and installing salvage and lifting



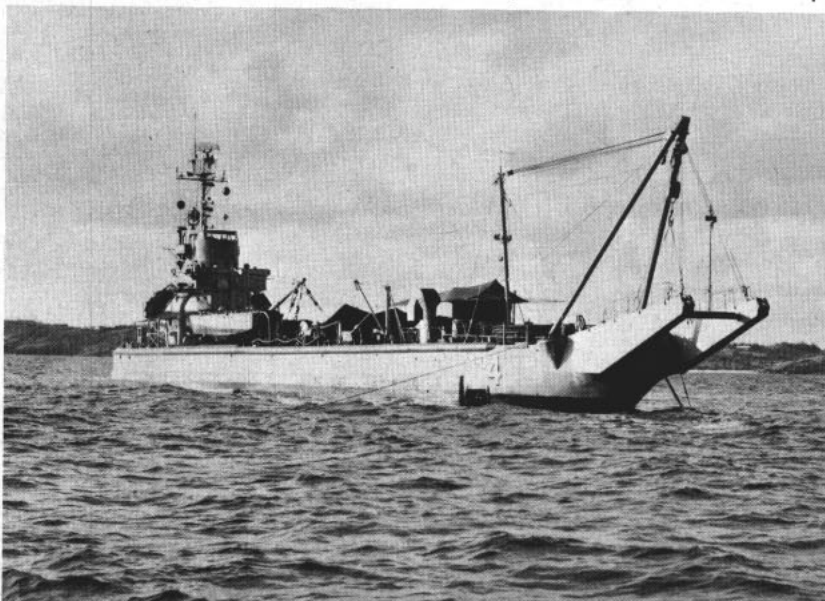
**BOW OVER STERN** — Navy's floating instrument platform, FLIP, is in vertical position with 280 feet of craft's 355-foot hull submerged.

gear. Upon completion, she was described as a "floating forklift." She was commissioned in April 1946 at Houston.

The ship is 225 feet long, with a beam of 35 feet. Her shallow-water draft of only 10 feet permits her to move over tops of sunken vessels or close inshore. With a tidal lifting capability of 600 tons, she can move over the top of a sunken ship, drop a steel cable and pass it under the wreck, lift it from the bottom by ballasting and deballasting, then carry it seaward into deeper water at high tide.

Eleven divers are assigned to *Windlass*. Diving in all types of gear, they are qualified in the use of underwater cutting and welding torches and all phases of salvage work.

**LOTS OF PICK UP** — One of two salvage lifting ships in commission, *USS Windlass* (ARSD 4) is on call 24 hours a day for those in need of help.



## Small Ships, Big Jobs

Size is no measure of worth, at least not where ships of the U. S. Navy are concerned.

Small ships, measuring 300 feet or less in length and displacing less than 1700 tons, are doing many jobs that affect the Fleet's ability to operate efficiently.

Although these ships may lack the glamor, speed and sleekness of the aircraft carrier, cruiser or destroyer, they have a capacity for hard work that belies their size. Their crews may range from about five to over 200 men.

One of the smaller ships is the inshore minesweeper (MSI). This ship is 110 feet long, shorter than the distance from first to third across a regulation baseball diamond. It is designed to keep inshore waters, such as harbors, bays, sounds, rivers and inlets, free from mines.

Two other minesweeping ships also fall into the small ship category. They are the coastal minesweeper (MSC) and the ocean minesweeper (MSO). Coastal sweepers measure 144 feet in length, have a crew of 40 men, and displace 320 tons. The MSOs are 665-ton, 171-foot ships manned by 75 officers and men. Performing minesweeping operations on the high seas, they act independently, whereas the MSC is confined to coastal waters.

All three of these mine counter-measure ships are specially built with wooden hulls and metals of the lowest possible magnetic attraction, a safety factor against magnetic mines.

Counted among the hardest working ships in the Fleet are the auxiliary ocean tugs and Fleet ocean tugs, ATAs and ATFs. They spend most of their time at sea towing barges, target sleds and other ships. They also do salvage work.

The larger one is the Fleet ocean tug, which is 195 feet from bow to stern and has a crew of 85 men. Displacing 1200 tons, this class of tug has four sets of diesel engines capable of producing over 3000 horsepower.

Auxiliary tugs are 60 feet shorter than ATFs and do work of the same nature, but on a smaller scale. They have a complement of 36 men, displace 500 tons, and can develop over 1500 horsepower with their twin diesel-electric engines.

The 207-foot salvage ships (ARS) serve much the same purpose as the ATAs and ATFs. Salvage ships do



towing work as well as their primary salvage mission. These 1500-ton ships carry fire-fighting equipment, a special towing engine, salvage pumps and deep- and shallow-water diving gear. Approximately 30 per cent of the 85-man crews are qualified Navy divers.

Although they are seldom needed in their prime capacity, submarine rescue ships (ASR) are an important part of the Navy's submarine force. Equipped with modern diving gear and an egg-shaped diving-rescue bell, these ships can bring submariners up from a stricken sub within 90 minutes after commencing rescue operations. They are 250 feet long, displace 1600 tons, and have a crew of 85 men. As with the ARS, part of the crew are qualified Navy divers.

Most surveying ships (AGS) are 300 feet or less in length. Equipped with special hydrographic instruments, they serve as floating laboratories for oceanographic research.

Without these ships, the missile-firing, larger ships-of-the-line might find the going much rougher.

## Hoel to the Rescue

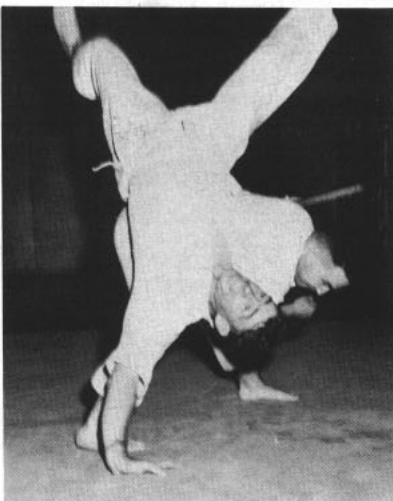
The new guided missile destroyer USS *Hoel* (DDG 13) had completed her shakedown cruise and was ready to go to work. Constructed in the east and shaken down off Guantanamo Bay, *Hoel's* first order of business was to report to San Diego, Calif., via the Panama Canal, for duty with the Pacific Fleet. She arrived in San Diego a little late, but nobody seemed to mind.

While en route to the Canal Zone *Hoel* was diverted to rescue a powerless yacht that had been adrift for 10 days in the Caribbean with a mighty lonely lone occupant on board.

The yacht, a 35-foot sloop named *Star Drift*, was piloted by Dr. William B. Howell, a part-time sea adventurer sailing from England to Australia. Dr. Howell, who lives in Sydney, Australia, is an experienced sailor-sportsman. He had previously sailed alone from England to Tahiti and Hawaii.

To be "more sportsmanlike," Dr. Howell did not equip *Star Drift* with a radio.

Some 95 miles northeast of the Panama Canal, *Star Drift* was dangerously slowed by contrary winds and calms. Her auxiliary engine



BACK WAY—R. W. Cook, CM2, and D. R. Hensley, BU1, of MCB-5 practice art of hand-to-hand combat.

broke down after a momentary spurt of power. She was hopelessly adrift.

Ten days later the sloop was sighted by the Greek freighter *Anastasia*. Her commanding officer notified Panama Canal authorities, who in turn alerted 15th Naval District headquarters. *Hoel*, only a few hours from the Panama Canal, was notified by 15ND to effect the rescue. *Hoel* changed her course and, after an hour of searching, located *Star Drift*.

Attempts by the destroyermen to repair the sloop's engine were futile. Next, a utility boat took the yacht in tow. This was too much for the utility boat; after a couple of hours, her engines overheated.

Finally, *Hoel* herself took over the towing operation.

Upon arrival in Cristobal, *Star Drift* was released for repairs. *Hoel* rested overnight, then continued on her way to San Diego.

At last report, *Star Drift* was shipshape and headed for Australia.

**DESTROYERMEN** watch from utility boat as USS *Hoel* (DDG 13) takes yacht in tow about 100 miles northeast of Cristobal, C.Z.



## Recruiting Is Better

It was a big year for the Navy Recruiter. From July 1961 through June 1962:

- More than 102,000 men were recruited, exceeding the previous yearly high since 1956 by more than 14,000.

- The average recruiter signed up 45 men.

- Nearly 7500 more men were enlisted under the High School Graduate Training Program than ever before. (If he has been graduated from high school, the recruit may be guaranteed assignment to class "A" school after boot camp.)

- Of the total number enlisted, more than two thirds were potential class "A" school candidates, as indicated by mental tests.

Recruiting officials drew a number of conclusions:

- (1) The Navy is becoming more attractive.

- (2) The 2300 Chiefs and PO1s assigned to recruiting duty are good Navy salesmen.

- (3) The new recruits are smart.

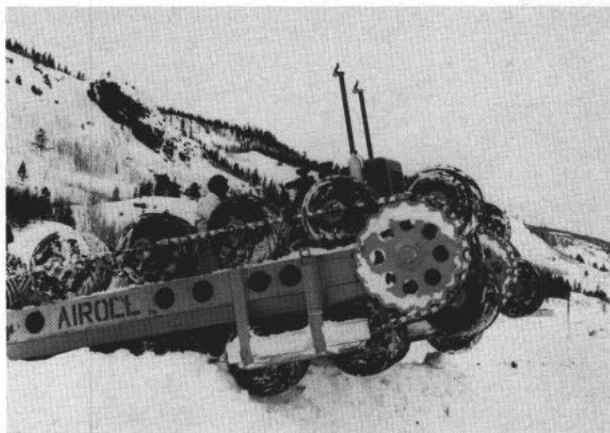
## Polaris Facilities to PacFlt

Nuclear-powered *Polaris* submarines and a ballistic missile sub tender have been earmarked for duty with the Pacific Fleet. How many subs, and how soon they'll be operating in the Pacific, has not yet been disclosed.

Apra Harbor, Guam, will be the tender's home port and a base for the subs. Dredging operations to make room for the ships have been in progress at Guam for several months.

An overhaul facility for *Polaris* subs has been established at Bremerton, Washington.

The Naval Ammunition Depot at Bangor, Wash., is taking on an additional role as a *Polaris* missile facility.



UNDERGOING snow and mud tests is a 19,000-pound vehicle, known as Airoll, which is being developed for the Navy.

### Navy MARS Underway

Plans are underway for establishing a Navy Military Affiliate Radio System (Navy MARS) similar to the Army and Air Force MARS.

The Navy MARS will emphasize amateur radio operator training in naval communications procedures.

This will provide an opportunity for amateurs to maintain an affiliation with the Navy in addition to providing a source of trained operators for use in local disasters or general emergencies.

Many of the operators will be former Navymen who already have their own radio stations with assigned call signs. The traffic they will handle will be the morale kind which doesn't qualify for transmission over regular Navy circuits.

Navy MARS will begin operation in four areas at Naval District headquarters in Boston, Mass., Great Lakes, Ill., San Francisco, Calif., and New Orleans, La.

Eight active duty Navymen will be assigned to the initial phase of the program, and personnel will be increased as participation increases.

Navy MARS should not be confused with either the Naval Communication System, which handles official Navy traffic, or the Naval Reserve Communication System, which is used for Naval Reserve Training.

The new project will provide an official Navy program in which qualified U. S. amateurs can take part. It will promote a closer working relationship between the U. S. Navy, Naval Reserve, and amateur radio organizations.

It also will provide an emergency communication system on a local, national, or international basis, when regular communication systems are disrupted by disaster.

Amateurs who are interested can obtain complete information from Director, Navy MARS, Office of Naval Communications (OP-94), the Pentagon, Washington 25, D. C.

### Rides Over Mud, Snow, Water

A new concept for off-the-road transport has been developed for the Navy. Called *Airoll*, it is designed to move a vehicle over ordinarily impassable terrain. It was developed by a private corporation under contract with the Office of Naval Research.

*Airoll* consists of a series of free-rolling, low-pressure pneumatic tires mounted on a chain which rotates around one driving sprocket and one idling sprocket. The chain travels only half as fast as the tires, moving them from the front to the rear of the vehicle and back again. The effect

is like moving a heavy object by placing a series of rollers under it.

The number of tires required for the chain varies according to their size. Regardless of how many tires are used, they are driven from two power outputs, one on each side of the vehicle. This contrasts with a multi-wheeled vehicle which has a power output for each wheel.

In soft terrain the tires stop rotating individually and serve as cleats or grippers while the *Airoll* moves as a tracked vehicle. It operates easily in snow, packing its own roadway. In water the tires act as paddles, giving a speed of about 10 miles an hour.

The vehicle moves like any wheeled vehicle on a hard surface, reaching a speed of 30 miles an hour on a concrete road. In contrast to conventional tracked vehicles, it will not damage pavement.

Powered by a standard automobile engine of about 80 horsepower, it is 14 and one-half feet long, about eight feet wide and nearly seven feet in height.

Eight *Airoll* vehicles have been ordered by the Marine Corps to be used as amphibious personnel and weapons carriers with about a half-ton payload.

### Hitting the Books

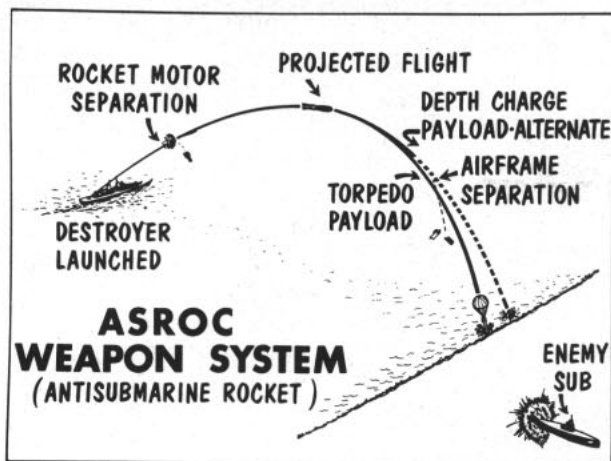
The long day is over for Wayne H. Heiser, AECM, of the Naval Air Station in Minneapolis, Minn. Master Chief Heiser now puts in what many Navymen consider to be a normal day—that is, normal working hours. For the past 10 years Heiser has been attending college after work.

Heiser's long day started at Washington University in St. Louis, Mo., back in 1952. It ended this year when he was presented with a Bachelor's



GOING UP — Flight model of advanced Polaris A-3 smokes skyward from pad at Cape Canaveral.





SUB KILLER — Drawing traces Asroc's path to target. Rt: Asroc is launched from a ship in the Pacific.

degree in Business Administration at the University of Minnesota.

Other certificates of scholarly achievement the Navyman has earned include one from Washington University in electrical technology, and five from Navy service schools from which he has been graduated.

What next? "Guess I'll stay home after work and enjoy my hobby. It's reading."

### PacFlt Gets Asroc

Surface ASW units of the Pacific Fleet are now being equipped with the antisubmarine rocket *Asroc*. The weapon is designed to locate, track and destroy enemy submarines while the attacking ship remains thousands of yards away.

Instead of being forced to close within a few hundred yards of a submarine to launch an attack, ships armed with *Asroc* can remain in formation and still attack effectively.

*Asroc* is a weapons system of four major parts. It consists of an underwater sonar detection device, a fire-control computer, a missile launcher and the missile. This is how it works:

A submarine is detected aboard ship by sonar equipment. The fire-control computer charts the course, speed and range of the contact. Then the launcher swivels into position for the attack. Fully automatic, it consists of eight cells arranged in two rows of four. One pair of cells at a time can be raised for firing. Missiles can be fired as rapidly as targets can be identified and tracked within an area of several miles around the ASW ship. Once the missile is launched, it follows a ballistic trajectory.

Approximately 15 feet in length

and one foot in diameter, the missile can be used as either a torpedo or depth charge. It is composed of three pieces. A rocket booster lifts the missile from the launcher and falls free at a predetermined signal. The aluminum airframe joining the booster and the payload is jettisoned just before the payload enters the water.

If *Asroc* is employed as a torpedo, a parachute slows its plunge into the water. A seawater battery is energized after the torpedo hits the water. The torpedo then begins a homing search for the sub.

The missile can also be used as a depth charge, sinking to a predetermined depth and exploding with a large effective kill area.



FOR THE BIRDS — Melvin W. Ganas, IC3, USN, of USS *Springfield* (CLG 7) is greeted by pigeons as he tours San Marco Square in Venice, Italy.

### Shipyard at Sea

Does your submarine need a tune-up? A new paint job? USS *ARD 30*, experienced in servicing submarines of the Pacific Fleet, is capable of providing repair and maintenance to most subs now in commission.

One of the Pacific Service Force's floating drydocks at Pearl Harbor, *ARD 30* is 494 feet-one inch long and 81 feet wide. She is a floating, miniature shipyard with shipfitting, machine, pipe, repair and carpenter shops. Capable of repairing ships other than subs, she has been based at the Pearl Harbor submarine base since December 1958.

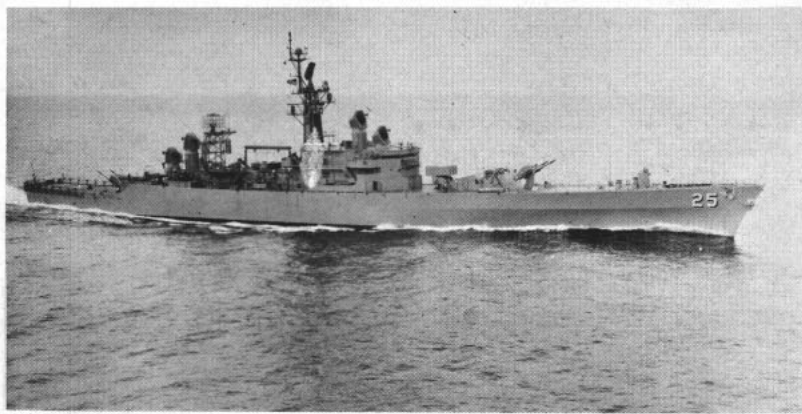
In 1961 she drydocked 26 submarines. During the average two-week overhaul period, the crew of *ARD 30* repairs the submarine, changes propellers and paints the sub below the waterline. Foreign allies also drydock their American-made subs in *ARD 30*.

A sub drydocked in *ARD 30* is fitted with pre-cut, tailor-made blocks which hug her keel and brace her in place while repairs are made.

After drydocking more than 75 ships since 1958, *ARD 30* recently received a three-month overhaul. Since she has no propulsion motors, she must be towed to and from her operating sites.

She was commissioned 24 Jun 1945, going into service at Guam, where she repaired World War II battle-damaged ships. After the war, she moved to Portland, Ore., where she was on an in-service, out-of-commission status.

During the Korean conflict, she was at Tongue Point Naval Station, Astoria, Ore., preparing units of the Pacific Reserve Fleet for activation.



UNDERGOING sea trials in the Atlantic is USS *Bainbridge* (DLGN 25).

## Two More Big Ones Meet the Fleet

Two new ships—both of them the first of their types—have joined the Fleet for active service. One, *uss Bainbridge* (DLGN 25), is the first member of the destroyer family to be powered by nuclear reactors. The other, *uss Raleigh* (LPD 1), is the Navy's first amphibious transport dock.

*Bainbridge*, commissioned at Quincy, Mass., in October, is the Navy's third operational nuclear-powered surface ship. (The others are the guided missile cruiser *uss Long Beach* (CGN 9), commissioned in September 1961, and the carrier *uss Enterprise* (CVAN 65), commissioned last November.)

During her first underway proof trials, *Bainbridge* demonstrated her designed full power and an ability to go from full speed ahead to emergency astern. In the course of the trials, which covered 570 miles, the new frigate burned less than five ounces of uranium.

The commissioning of *Bainbridge* was the highlight of a week-long celebration by the city of Quincy in commemoration of the 60th anniversary of destroyers. The name of the new frigate is especially fitting; it's the same as that of the first ship listed as a destroyer (*Bainbridge*, DD 1), 60 years ago.

The similarity between the old *Bainbridge* and the new ends with their names. DD 1 displaced 420 tons; DLGN 25 displaces over 8000 tons. *Bainbridge* of 1902 had a crew of 75; nearly 500 men serve on board today's *Bainbridge*. Armament on the old *Bainbridge* consisted of 3-inch guns and two torpedo tubes. The new frigate carries

dual-purpose guns, antisubmarine rockets, and advanced *Terrier* surface-to-air missiles fore and aft.

The most notable difference, however, is in cruising range. DLGN 25, with her compact source of nuclear power, could remain underway almost indefinitely. Her high-speed endurance at sea is practically unlimited.

With a full load of coal, DD 1 could just make it across the Atlantic.

*Raleigh* was commissioned on 8 Sep 1962 at Brooklyn, N. Y. The new LPD is virtually an attack transport, landing ship, and attack cargo ship combined. She's designed to carry troops and their heavy equipment to an amphibious assault area, then land them by helicopter or with seagoing landing craft.

The LPD's well, similar to an LSD's, will carry nine LCMs for landing troops and equipment too heavy to be carried by whirlybird. A helicopter platform, built over the well, will carry six HR2-S amphibious transport helicopters for vertical envelopment operations during the amphibious assault.

The new LPD is the fourth ship to be named for the capital city of North Carolina. (The first *Raleigh* was a 32-gun Continental frigate, the second and third were cruisers launched in 1889 and 1922.)

Today's *Raleigh* is 521 feet in length and displaces 8040 tons (standard displacement). She is manned by 30 officers and 460 enlisted men. Her troop capacity is 930. *Raleigh* has room left over for 2000 tons of cargo.

## AFRS Is Going For 30

Twenty years and more ago, any serviceman stationed in a part of the world beyond the reach of an American radio station had either to depend upon whatever his short-wave set pulled in from the mother country, or depended upon the local stations, if any, for his radio entertainment.

Then came World War II and men were uprooted from their homes by the thousands and flung into unfamiliar surroundings. That was when (in May of 1942, to be specific) the War Department decided a little familiar music and hometown news delivered via the radio would improve morale. Thus, the Armed Forces Radio Service (AFRS) was born. Its job was to aid, develop and operate radio stations to be established by the military service.

Since there was a lot of talent locally available, the AFRS set up shop in Los Angeles and was soon serving a mushrooming number of overseas stations. Kodiak Island, Alaska, became the first of 177 outlets which the AFRS served during World War II.

The programming was mostly canned. Each week the radio station received a shipment which was made up principally of de-commercialized copies of the latest popular shows on the American networks, together with recorded music and programs produced in Los Angeles especially for military listeners.

World War II veterans will remember shows to which top Hollywood talent contributed, such as *Command Performance*, *Jubilee*, *GI Journal* and *Mail Call*.

In addition to these star-studded programs, there were broadcasts of news, sports and special events which were received via short-wave broadcast. In this way, servicemen all over the world were given radio entertainment equal to the best available in the United States.

The war ended and most members of the armed forces came home. The number of Armed Forces Radio Stations was cut from 177 to 45. These were considered sufficient to serve the armed forces personnel remaining overseas.

When the Korean fighting broke out, the number of stations for the armed forces again increased, and television was added. Thus television stations were soon in operation at remote bases all around the world.



The first overseas television outlet was opened in October 1954 at Lajes Field in the Azores. It was soon followed by others and there are plans for still more.

Today, through short-wave, radio transcription and TV film, the Armed Forces Radio and Television Service reaches about 90 per cent of all Americans stationed overseas and on board Navy ships, providing for them a link with home which is so necessary to good morale.

### Fleet Welcomes Barney

The guided missile destroyer *uss Barney* (DDG 6) was commissioned in August at the U.S. Naval Base, Philadelphia, Pa.

*Barney* is 431 feet long and displaces 3370 tons.

*Barney* was christened by the great-great granddaughter of Commodore Joshua Barney, usn (1759-1818), for whom the new guided missile destroyer was named. Commodore Barney served aboard *Hornet* and *Wasp* during the Revolutionary War. As a captain during the War of 1812, he commanded a fleet of gunboats which participated in the defense of the Chesapeake Bay.

### Hydrofoil Patrol Ship

The Navy's first hydrofoil patrol craft, *High Point* (PCH 1), has been launched at Seattle, Wash. Using information gleaned during 10 years of study by Navy and industry, designers hope the craft will prove that a hydrofoil coastal patrol ship is practical.

It is a small, relatively inexpensive craft designed by the Bureau of Ships and built by a private company. High-speed submarines may be attacked with the craft's four Mark 44 torpedoes.

*High Point* is 117 feet long, weighs 110 tons, and when flying on submerged foils, reaches speeds of more than 40 knots. Two 3000 hp gas turbine engines power its foil-borne operations. When the ship is not using the foils, it may use either the gas turbines or an auxiliary 600 hp diesel engine. Foil-borne, it has a range of 700 miles, but in conventional cruising may travel 2000 miles.

The Navy also has a contract with the same company for the construction of a 15-ton hydrofoil test craft to investigate very high speed submerged hydrofoil systems. This craft is scheduled to be completed and delivered to the Navy late this year.

## You'll Find Retirees All Over the World

Ever wonder where most old sailors go when they retire? According to the records, the vast majority of them remain within the limits of the good old continental U. S.—apparently perfectly content to settle down after years of traveling.

Not all of them, however. More than 2900 Navy retirees are currently proving the exception to the rule—and, as you can see from the retirement check mailing list below, some of them have chosen some fairly exotic Shangri-las. All but a handful, of course, have headed for a half dozen easily understandable locations—Guam, Hawaii, the Philippines, Alaska, Japan and the

Canal Zone—all of which contain large concentrations of U. S. government employees. But what, you may well be inclined to wonder (as do we), has taken some others to such spots as Pakistan, Finland, Luxembourg and Ethiopia. Not to mention Antarctica.

Ah well, with no further evidence at hand, we can but speculate. ALL HANDS, we're proud to say, reaches most every nook and cranny of the world sooner or later. Perhaps we'll be hearing from some of these roving retirees. If you should stop by some of these ports of call, drop in on the old sea dog. You might get a story.

Location	Checks	Location	Checks	Location	Checks
Alaska .....	86	England .....	26	Netherlands ....	4
Antarctica .....	1	Ethiopia .....	1	Newfoundland ..	4
American Samoa ..	47	Finland .....	1	New Zealand ...	12
Argentina .....	1	France .....	12	Norway .....	1
Australia .....	62	Germany .....	16	Pakistan .....	1
Azores .....	2	Guam .....	345	Peru .....	2
Bahamas .....	1	Haiti .....	1	Portugal .....	1
Belgium .....	1	Hawaii .....	724	Puerto Rico ....	65
Bermuda .....	11	Hong Kong .....	38	Sangley Point,	
Brazil .....	2	Ireland .....	2	P. I. ....	913
Canada .....	46	Israel .....	1	Spain .....	28
Canal Zone .....	80	Italy .....	19	Subic Bay, P. I. .	152
Chile .....	1	Japan .....	88	Sweden .....	1
Costa Rica .....	5	Korea .....	4	Switzerland ....	3
Cuba .....	23	Luxembourg ....	1	Taiwan .....	8
Cyprus .....	1	Malta .....	1	Trinidad, BWI ...	3
Dominican		Marshall Islands .	13	Turkey .....	3
Republic .....	1	Mexico .....	29	Uruguay .....	1
Denmark .....	1	Midway Islands ..	2	Venezuela .....	1
Egypt .....	1	Morocco .....	6	Vietnam .....	2



GUN TOTER — USS Newport News (CA 148) can deliver big punch with her nine eight-inch/55s, 12 five-inch/38s and 24 three-inch/50s.

# Sports Champs Make the Scene

THE "GOOD OLD SUMMERTIME" is more than the title of a good old song. It's also a time when thousands of sailor sportsmen of varying sizes, shapes and shades of persuasion hit the great outdoors en masse.

We've heard of hundreds of fine individual and team performances in dozens of Navy sports over the past few months—far too many to list in detail here. To give you some inkling of the scope of the world-wide Navy recreation program, however, here is an account of just a few of them.

## All-Navy Softball

At the All-Navy level, for example, the Seattle World's Fair formed a spectacular backdrop for the 1962 All-Navy softball tournament, hosted in mid-September by NAS Seattle. And even such a colorful extravaganza as the Fair failed to dim the luster of 20-year-old Seaman Joe Lynch. The fireballing right-hander from the submarine tender *uss Sperry* (AS 12) very nearly stole the whole show.

A six-two, 220-pound baby bull from Nashville, Tenn., Lynch hurled three successive shutouts and averaged two strikeouts per inning in leading the San Diego-based *Sperry*, representing the Pacific Coast region, to its four-game title sweep.

Lynch's amazing mound performance got underway in the tourney's very first game as he limited the hard-hitting SubLant crew to two singles, struck out 15, and put some added frosting on the cake with an enormous three-run homer of his own. It continued through the PacCoaster's second set-to as he three-hit SouthLant and whiffed 14, and wound up in the finale when he

again paralyzed SubLant with a two-hitter and fanned 13.

Sidekick Jim Sperry tossed the winner's other shutout, a sparkling one-hit effort, sending 10 Potomac River Naval Command stickers down swinging in the process.

Complete tournament results:

### First day

Pacific Coast (*uss Sperry*)—3  
Atlantic Fleet (SUBLANT)—0  
North Atlantic (PRNC)—2  
Western Pacific (SUBPAC)—0  
South Atlantic (NTC Bainbridge)—Bye

### Second day (Rained out)

#### Third day

PacCoast—1  
SouthLant—0  
LantFlt—10  
WestPac—0  
PacCoast—3  
NorthLant—0  
LantFlt—5  
SouthLant—1

#### Fourth day

LantFlt—3  
NorthLant—2  
PacCoast—3  
LantFlt—0

It was this selfsame pair—Lynch and Sperry—who combined forces to hurl AirPac to last year's All-Navy championship, and they were back bigger and better than ever this time around. The strong-armed duo's combined two-year All-Navy pitching log now shows: Eight games; 61 innings pitched; one run; 18 hits; 112 strikeouts.

While pitching, obviously, dominated the series, PacCoast showed some other bright lights too. The whole team fielded brilliantly—when they got the chance. Offensively,

there was second-sacker Phil Crandall, the blazing-fast, switch-hitting lead-off man, who batted .333, reached base nine times in four games, and scored six of his team's 11 runs; third baseman George Giles, another heavy sticker at .333, and veteran outfielder Doc Derryberry, whose clutch hits drove in the winning runs in two of his club's triumphs.

## Pistol Champ

AT THE NATIONAL Rifle and Pistol Matches, staged annually at Camp Perry, Ohio, Aviation Machinist's Mate Second Class Donald L. Hamilton, USN, whanged away so effectively with a variety of sidearms he became the Navy's top pistol shooter. And in the process he came within a whisker of pulling the upset of the current U. S. marksmanship scene.

Army SGT William Blankenship, defending and two-time national champion from previous Camp Perry meets and acknowledged to be one of the world's top pistol shots, won his third straight national title—but not before Navyman Hamilton had given him the battle of his shooting life. It was only after the last string was fired and the targets scored that the sergeant was declared winner, and then only by the x-ring count. Both had racked up identical 2633 scores, but SGT Blankenship had put 128 shots into the tiny x-ring inside the bull's-eye, while Hamilton had managed but 116 x's.

PO2 Hamilton, who serves at NAS South Weymouth, Mass., may have missed the big prize, but he still wound up with some very tangible rewards.

He broke the National Match record, for example, in both the .22-caliber timed fire and the .45-caliber timed fire categories, with scores of 200-17 and 200-14, respectively. He became the first recipient of the newly instituted Secretary of the Navy award—a .45-caliber pistol with interchangeable barrels and a gold trigger.

## SubPac Wins Again

OUT PEARL HARBOR way, SubPac, like ol' man river, just kept rolling along.

Manager Herb Frantz's pinstripe-clad Raiders, possessors of a proud

**CHAMPIONS AGAIN** — SubPac Raiders display victory smiles after winning third straight Hawaii Interservice Baseball League title.



**ALL HANDS**



Navy baseball record stretching clear back to the 1920's, racked up their third straight Hawaii Interservice Baseball League title (and their umpteenth over the years) with an over-all league record of 46-9.

The Raiders then lambasted the civilian league pennant-winning Asahi club three games to one in a best three out of five series to reign, once again, as champions of 50th state baseball. Slick lefty Walt Haun, who had earlier posted an 18-3 Interservice League won-lost mark, twice threw shutouts at the bedazzled Asahis in the title series.

SubPac departed Hawaii shortly after the final out for a two-week goodwill tour in Japan. They were slated to play a series of games against some of Japan's top amateur, industrial and semi-pro teams.

### Challenge Shield

**I**N HONG KONG the CruDesPac destroyer *USS Black* (DD 666), currently serving as U. S. Navy station ship at that British Crown Colony, became the first winner of a new Challenge Shield, presented to the victor in any and all athletic events staged between the U. S. station ship and its British counterpart, *HMS Tamar*.

*Black* gained first possession of the new award by downing *Tamar*, 69-48 in a swimming match. Ensign Jim Guthrie, USN, a former Yale University tank star, led his ship to victory with winning performances in both the 100- and 200-yard free-style races and the 25-yard butterfly event. And not about to be outdone by his troops, *Black's* skipper, CDR Robert E. Bondy, Jr., got into the act by winning a special veteran's handicap race.

### Skeet Meet

**A** FIVE-MAN Department of the Navy skeet team, paced by the dead-eye antics of 20-year-old Seaman Ken Sedlecky, took on nearly 500 of the world's top shotgunners in the World Skeet Championships at Montreal, Canada, and posted some shining individual and team performances.

Young Sedlecky, who's been shattering clay pigeons with near-monotonous regularity since he was a precocious knee-high to a 20-gauge, won the International Style Skeet match, breaking 100 consecutive birds, and placed a remarkable fourth in the Champion of Cham-

pions event. He then joined Chief Aviation Ordnanceman Allen Buntrock to cop a pair of two-man team matches—the 410-gauge with a 195x200 score, and the 20-gauge with a 199x200 showing.

On his own, Chief Buntrock achieved runner-up honors in the 410-gauge match, and won the Class AA High Over-all (four guns) title with a 544x550 total. CAPT Paul Pugh, O-in-C of the team, captured the Class A 12-gauge title with a 249x250, and teamed with CDR R. Livingston to win the two-man Class A 12-gauge event with 497x500.

The Navy squad also racked up runner-up finishes in four different five-man team events (Chief Aviation Electrician's Mate Ken Pendergras was the fifth member of the Navy quintet), during which they set a *new world's record* for long run without a miss by a five-man military team—scoring 543 consecutive hits.

Their Montreal achievements were only the latest in a long string of championship efforts by the Department of the Navy gunners this year. Earlier, for example, they won the five-man team title at the Inter-American Championships at San Juan, Puerto Rico, and both the five-man open and five-man military titles in the Pan-American championships. They posted new match records in all three events.

### Billfish Tournament

**L**CDR G. LEO BROWN, USN, led his Pearl Harbor Naval Station team to a first place finish in the Fourth Annual Hawaiian International Billfish Tournament by boating an 804-pound Pacific blue marlin.

LCDR Brown, who is CO of the

U. S. Naval Reserve Training Center, Honolulu, hooked his prize catch (largest in the history of the tournament) while fishing from NavSta Pearl Harbor's recreation boat *Kaimakani*.

### Softball Again

**O** THER SHIPS, TOO, besides *Sperry*, did right well on the softball front.

The repair ship *USS Ajax* (AR 6) knocked off two strong shore-based clubs to win the 1962 Commander Naval Forces Japan tournament at NAS Atsugi.

The Spartans got off on the wrong foot by dropping their first game to the Naval Security Group Kami Seya Sparks by a 3-1 count. They rebounded strongly, however, behind the masterful twirling of Patternmaker Third Class Ernie Robinson, who pitched all four games, to shade NAS Atsugi, 1-0, and down Kami Seya in a final-day double-header by 5-0 and 7-5 scores.

*USS James C. Owens* (DD 776), meanwhile, tore up the majority of its East Coast opposition for a fine, regular season 38-4 won-lost record. Along the way they won the Charleston Naval Base league title with an unblemished 23-0 mark, and copped the Charleston-Mayport-Key West area championship by upending the cruiser *USS Huntington* (CL 107) two straight, in a best two out of three series.

Not content with all of this, the destroyermen then journeyed to Newport, R. I., where they battled their way to the finals of the CruDesLant play-offs before dropping a heartbreaking 13-inning decision to the Norfolk All-Stars.

SOFTBALL PITCHER Vern Southerland, YN2, and CO and XO of *USS James C. Owens* (DD 776) pose with trophies the DD won this year.



Brief news items about other branches of the armed services

A PROGRAM GEARED for the development of balloons which can remain aloft in the fringes of space for several weeks or more has been lofted into action by the Air Force research laboratories in Cambridge, Mass. The problem: The Air Force needs relatively inexpensive balloons which can support scientific probes near the edge of space.

A development test conducted last summer exemplifies what the Air Force is doing in its search for sturdy, high-flying gasbags. A 34-foot diameter balloon made of a tough, plastic material was eased to an altitude of 68,000 feet and remained there for 19 days before scientists ended its jaunt by radio commands from earth.

The balloon, launched at Kindley Air Force Base in Bermuda, covered 9300 miles while aloft. Its route took it from Bermuda, south of Florida, north of Mexico City, then across the Pacific to Hawaii and its cut-down point near Iwo Jima.

The balloon was kept under constant surveillance with the help of radio transmitters monitored by scientists at key ground stations. The payload contained performance-monitoring instruments and a variety of radio gear which included the command receiver to trigger the cut-down signal.

The success of the flight has opened the way for tests of larger balloons at even higher altitudes.

★ ★ ★

ARMY MAAGS AND MISSIONS now fly the new Army field flag.

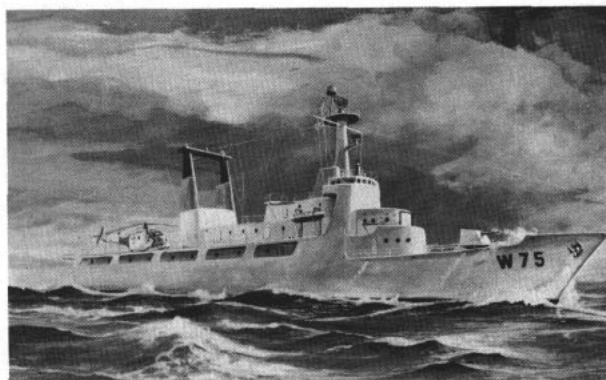
The flag is blue, three feet wide and four feet long, with the Department of the Army seal in white. A white scroll under the seal will bear the inscription "United States Army." The date "1775" appears below the scroll.

The design is like that used on the official Army flag except the colors are reversed. The Army field flag will be used by MAAG missions and other organizations not authorized to fly the Army flag.

The new flag is the second ranking Army flag.



**NO PICNIC** — An Army Ranger lectures on survival in an unusual 'classroom' at ranger camp in Florida.



**COMING UP** — Drawing shows gas turbine-powered, 372-foot rescue cutter Coast Guard plans to build in '64.

THE DEPARTMENT OF DEFENSE has begun construction of the \$700,000 Cumberland Plateau Seismological Observatory located on a 9200-acre site about 12 miles south of McMinnville, Tenn.

When the observatory is completed this fall, it will be operated by the Air Force.

The new installation will be part of a system of four seismological observatories. The first was completed in 1960 and is located in the Wichita Mountains at Fort Sill, Okla.

The Cumberland Plateau Observatory will be similar to the Wichita Mountains Observatory. It will have 21 seismometers located in watertight vaults covered by about two feet of earth.

Ten of the seismometers will be arranged in a geometrical pattern suitable for detecting underground nuclear explosions. All will be monitored by the observatory's amplification and recording equipment.

A staff of six will man the observatory—a station manager, station engineer, three data analysts and a station technician.

Similar observatories are being built in Oregon and Utah. The entire system will cost approximately 2.1 million dollars.

★ ★ ★

ARMY EXPERIMENTS with those everyday coatings known as paint have resulted in two new developments. Scientists at the Engineer Research and Development Laboratories in Fort Belvoir, Va., have come up with an "organic stripper" which can remove paint or enamel from any type of surface within four to five minutes, and a green camouflage paint which reflects a high percentage of the sun's radiation.

The "stripper," which contains detergent emulsifiers, is considered superior to any type of paint remover now available. It softens the paint or enamel film, then releases a gas which lifts the film from the surface. The loosened, partially dissolved paint film is then flushed off with water. The stripper is nonflammable, and can be applied to any surface by brush or spray.

The new paint was developed after experiments with special green pigments. It can be used to camouflage Army missiles, which in the past have been painted white to prevent excessive absorption of solar energy which could overheat the delicate instruments.



THE AIR FORCE is establishing a basic research laboratory at its Academy near Colorado Springs, Colo.

It will be the first such installation to be established at a service academy.

The proposed laboratory will make use of research equipment already at the Academy and will serve a dual purpose. It will increase the Air Force's ability to conduct basic research programs and will provide a means for selected members of the Academy's faculty and outstanding air cadets to collaborate in Air Force research programs.

The staff at the laboratory will include 15 scientists, two research assistants and four administrators.

★ ★ ★

THE ARMY HAS RECEIVED the first model of a new more-punch-per-pound generation of self-propelled artillery. It is the M-107, a 175mm "Long Tom" weighing just under 30 tons.

Another new self-propelled weapon, the eight-inch M-110 howitzer, is being produced on an adjoining production line of the company that delivered the M-107.

The M-107 has a 30-foot barrel capable of accurately firing a shell more than 20 miles. It replaces the M-55 self-propelled 155mm gun, which weighs about the same, but delivers a much lighter projectile only half as far.

A triple-purpose vehicle can carry either the M-107 or the M-110, or be used as an armored wrecker. When the gun is fired, a locking device eliminates spring in the vehicle's tracks, in effect converting them to solid platforms which transmit the recoil force directly into the ground. Thus, the weight of the vehicle can be cut almost in half without interfering with the action of the gun.

The gun control system uses recoil energy to adjust the tube and power loading devices, saving wear on the vehicle's battery.

Diesel engines used with the M-107 and M-110 are capable of cruising 450 miles without refueling their 300-gallon tanks. A gasoline-powered model would require 450 gallons of fuel for the same distance.

Transportable in a C-133 aircraft, the M-107 and M-110 have a top speed of 34 miles per hour, can climb a 60 per cent grade, cross over seven-foot trenches, and roll over vertical obstacles up to 40 inches in height.

★ ★ ★

A SMALL, COMPACT MAGNETO requiring no spare parts or maintenance is currently being tested by the U.S. Army. Unlike the conventional magneto, which is designed for repair parts replacement, the new one is a throwaway type.

It is expected to simplify logistics by eliminating complicated cataloging and supply of repair parts, as well as bulky and expensive support equipment and tools. Replacing the entire assembly, using the unitized magneto, has been found to be less costly and time-consuming than replacing parts in the conventional model. In addition, little or no training of maintenance personnel is required.

The new magneto weighs three and three-quarter pounds; occupies 45.0 cubic inches and costs less than \$16. The earlier type magneto weighs nine and one-half pounds, occupies 78.5 cubic inches and costs \$32.

ARCTIC AND ANTARCTIC expeditions have always been troubled by snowfall that buries campsites and shrinks snow tunnels. But at Camp Century on the Greenland icecap, the Army is working on the problem.

The U.S. Army Engineers are testing a snow trimming machine, built to scrape new-fallen snow from the top of buildings and snow tunnels.

Consisting of a trimmer head mounted on a self-propelled platform, it runs on a track attached to the roofs of buildings. The track is aluminum and designed to guide, support, and hold down the trimmer.

At the same time, the Army is testing a machine that will crush blocks of snow removed by the trimmer, and put the dry, crumbled snow on a pneumatic conveyor system that will take it outside the camp. The conveyor has been under test since last summer.

★ ★ ★

THE ARMY SIGNAL CORPS is making plans for a powerful broadcasting system designed to be airlifted by helicopter. The system—virtually a miniature radio studio—could be landed anywhere in the world and go on the air in a matter of hours.

One of the transmitters will be a 50,000-watt standard broadcast unit, equal in power to the largest commercial radio station, with an area coverage up to 12,000 square miles. A second transmitter is of 50,000-watt short-wave design with a range up to 6000 miles.

A complete broadcasting system can be assembled and ready to broadcast within a few hours. One helicopter can carry a "heli-hut" which contains the broadcast gear. A typical hut may be about 12 feet in length, six feet wide and six feet high. It may weigh 4000 pounds, and can be carried by an H-37 helicopter on a 100-mile mission without refueling. Standard Army cargo planes and ground vehicles may also transport the broadcast huts.

The system can receive and monitor outside radio broadcasts, and tape or convert them for rebroadcast on either medium or short-wave equipment. It can also be used to originate programming, and could broadcast two different programs on two wave lengths to two separate audiences at the same time.



MOVING UP — Armored personnel carriers of the 28th Division move out with infantrymen during maneuvers.

# THE BULLETIN BOARD

## Deep Freeze Can Be Fine Duty If You Like That Sort of Thing

**W**OULD YOU LIKE A TOUR of duty which promises to be interesting and adventurous, and which has some very tangible rewards to offer? If you would, and if you can qualify, Operation Deep Freeze 64 may well be the answer for you.

Operation Deep Freeze, of course, is the code name for the Navy's support of the U. S. Antarctic Research Program. Volunteers are now being sought for next year's program. The best qualified will be selected in early 1963 for deployment about September 1963.

Summer support personnel will return to CONUS about March 1964, whereas those selected to winter-over will remain in Antarctica until approximately November 1964.

Those rewards we mentioned above? Well, in addition to the personal satisfaction to be gained through receiving and completing a challenging assignment, and through the sharing of an experience incomparable to any other Navy assignment, two specific rewards are offered.

The Antarctic Service Medal is awarded for Deep Freeze duty. In addition, if you winter-over, every effort is made to assign you to duty in an area of your choice when you return. The Navymen returning from a year in the Antarctic late this fall, for example, are all being assigned to their first-choice area.

You may, if qualified, volunteer for duty with either of the two units—Antarctic Support Activities or Air Development Squadron Six (VX 6)—which venture south each year.

For duty with Antarctic Support Activities, the following grades and designators, with qualifications as indicated, are required for the winter-over party:

13XX CDR (Commanding Officer)  
1530/13XX LCDR and below,  
aerological experience  
13XX LCDR or LT, ground control  
approach experience  
11XX LT and below, communications  
experience  
21XX LCDR or LT, including  
flight surgeon

22XX LT  
31XX LCDR and below  
41XX LCDR and below  
51XX LCDR and below  
849X  
798X

The following enlisted ratings are required for the winter-over party: ET, RM, YN, PN, SK, DK, CS, SH, SH-3122, EM, IC, EN, DC, SF, CE, CM, EO, BU, SW, UT, CN, AG, AB, PH, HM, DT, MR.

For duty with Air Development Squadron Six, the following grades and designators, with experience indicated, are required:

13XX CDR and below, experience  
in R7V, R4D-8, HUS, P2V, R3Y or  
C-130

135X LT and below, experienced  
aerial navigators

31XX LCDR and below  
711X  
741X  
831X

The following enlisted ratings are required: RM, JO, AM, AME, AMH,

## WHAT'S IN A NAME

### Ships Named Bainbridge

Ships named *Bainbridge* have been in and out of the Navy for the past 120 years. All but one have been members of the destroyer family.

Destroyers named *Bainbridge* served during 44 of the 60 years that DDs have been part of the Navy. All are prominent in Navy history.

The first ship listed as a destroyer was *Bainbridge* (DD 1).

Forty years ago another *Bainbridge* (DD 246) made history for her rescue of 500 persons from a burning transport.

The Navy's first nuclear-powered guided missile frigate has been commissioned *Bainbridge* (DLGN 25).

Commodore William Bainbridge, the man after whom these ships were named, was born in Princeton, N. J., on 7 May 1774. At the age of 24 he entered the Navy as lieutenant.

Commodore Bainbridge distinguished himself during the War with France. He was in command of the frigate *Philadelphia*, when, in December 1803, she was captured in the harbor of Tripoli, where he was held prisoner until June 1805. The commodore commanded *Constitution* during the War of 1812. Between 1824 and 1827 he served as Navy Commissioner.

The first ship commissioned *Bainbridge* was a 12-gun, 100-foot brig which served from December 1842 until August 1863.

The first destroyer named *Bainbridge*

was commissioned on 24 Nov 1902. She was decommissioned in 1919.

The second destroyer named *Bainbridge* (DD 246) was commissioned on 9 Feb 1921. It is this ship which was responsible for the rescue of approximately 500 people from the burning French transport *Vinh-Long* in 1922. She served in World War II and was sold by the Navy in November 1945.

The latest USS *Bainbridge* was put in commission this summer. Her designation is nuclear-powered guided missile frigate (DLGN 25). Vital statistics of the new *Bainbridge* are as follows: Displacement, 6500 tons (standard); length, 564 feet; beam, 58 feet; armament, Terrier guided missiles and Asroc antisubmarine weapons, plus two 3-inch antiaircraft guns and six torpedo tubes.





YN, PN, SK, DK, CS, AN, AB, AK, PR, PH, HM, TN, AD, ADJ, ADR, ADH, AT, SD, ATN, ATR, AE, AEI, AEM, AMS, DT.

To get Antarctic duty with Operation Deep Freeze, you must:

- Be a volunteer.
- Be recommended by your commanding officer on the basis of performance, technical skill, resourcefulness, versatility and interest.

- Have at least 24 months' obligated service or agree to extend in order to have the specified obligated service. Naval Reservists and Navy-men who will be eligible for transfer to the Fleet Reserve must agree to remain on active duty for 24 months. Medical officers should have at least 24 months' obligated service or agree to extend.

- Have a clear record, reflecting sound moral character and professional dedication. You must have no past or pending domestic problems or indebtedness.

- Meet necessarily rigid physical requirements. The objective is to procure and retain Navymen physically qualified and temperamentally adaptable to the rigorous conditions of Antarctic service, and to exclude those who are likely to require repeated or prolonged medical attention, or who will not be able to perform at full capacity in the normal scope of their employment. You must meet the physical standards for entrance into the naval service as listed in Chapter 15 of the *Manual of the Medical Department*, plus some additional requirements listed in Enclosure (1) to BuPers Notice 1300 of 11 Sep 1962.

## New Travel Pay Tables May Make Some Changes In Your POV Plans

Here's a quickie quiz for you. How far is it from, say, Norfolk, Va., to San Francisco, Calif.?

The answer? Well, it all depends.

As the crow flies, we're not sure. If you're talking about the railroad distance, it's very nearly 3250 miles. By car, however, it's only 2990 miles. And, since the Department of Defense has no interest whatsoever in crows, but is extremely interested in cutting down on travel expenses for the military, mileage differentials such as the one above have become mighty important to all of us. If you prefer to drive your own car when

All-Navy Cartoon Contest  
LT Paul B. Kincade, USN



"When my father promised me a world cruise and complete wardrobe as a graduation present, I never dreamed he meant . . ."

you shift from one duty station to another, it is going to cost you some travel money from here on in.

Here's what has happened. Beginning with fiscal 1963 (1 Jul 1962) DOD has decided to compute all permanent change of station, TAD, and other mileage claims, when a privately owned vehicle is used, on the official highway mileage rather than the "common carrier"—usually railroad—distances.

For an idea of just how much less money this can mean to you if you employ a POV on your next transfer, let's take the example of a sailor with a wife, three children (ages 13, 10 and 8) and a set of orders transferring him from Norfolk to a San Francisco-based ship.

Before 1 July this family, making the cross-country trek in their own car, would have collected a combined total of \$777.12 in travel money—a figure arrived at by multiplying 24 cents per mile (the sailor's six cents, the wife's six cents, the 13-year-old child's six cents, plus the three cents each per mile allowed the younger two children) by 3238 miles, which was the official distance. Under the new DOD rules, however, this same family would now receive \$717.60 (24 cents per mile times 2990 miles) or some \$60 less than before.

If you're single, you could have made the Norfolk to San Francisco trip in your POV before 1 July and been paid \$194.28 in travel allow-

ance. Now, for the same drive, you'd receive \$179.40—or about \$15 less.

These new mileage tables apply to all active duty personnel changing station on orders. They *do not* apply if you are going home from active duty, whether you are retiring, resigning, being released, going to the Fleet Reserve, being discharged, or are being severed from the service.

The new rule says, in a nutshell, that if you are in a duty status upon completion of travel, you will be paid under highway tables if you travel by private car. If you are not in a duty status at the end of your trip, you will receive travel compensation based on the common carrier mileage in all cases.

In nearly all cases, highway distances are shorter than common carrier mileage—from Boston to San Diego, for example, the cut is 384 miles. There are a few minor increases, but in most instances they affect relatively short hauls.

There's another loss involved too, but this one concerns travel time rather than money. Travel time is figured on the basis of 250 miles per day when traveling in a POV. Thus, the sailor making the Norfolk to San Francisco drive now would be allowed 12 days travel time, instead of the 13 days previously granted.

Alnav 17, recently circulated, served notice of the new rules, and let disbursing officers know how to handle mileage claims under them. It also discussed their effect upon both POV and common carrier travel between CONUS and Alaska and Newfoundland.

## Correspondence Courses Range From ASW to Communications

The Naval Correspondence Course Center has made available six new correspondence courses, two officer and four enlisted. Two have been discontinued. They are *Signalman 3* (NavPers 91290-A) and *Signalman 2* (NavPers 91291-A), which have been combined in the new *Signalman 3 and 2* (NavPers 91291-B). The other new courses are:

Course	NavPers No.
OCC The Antisubmarine Officer	10405
OCC Naval Control of Shipping	10413
ECC Communications Technician	
"A" 3 and 2	91558
ECC Sonarman 1 and C	91265
ECC Communications Technician	
"T" 3 and 2	91559

# Retirement Will Require a Bit of Foresight on Your Part

**I**F YOU'RE A REGULAR NAVY officer, commissioned or warrant, who's making plans for voluntary retirement, here's a tip from the Bureau branch that handles retirement matters: Read the official directives on the subject before you submit your request. They may contain some fine-print factors you are not aware of.

In the past, some officers neglected to read the official word before requesting retirement. One result has been a number of retirements disapproved because of ineligibility. The officers concerned would have known they were ineligible had they taken the trouble to find out.

The ground rules for the voluntary retirement of commissioned and warrant officers of the Regular Navy are laid down in SecNav Inst. 1811.3D. BuPers Inst. 1811.1B goes into more detail, and lists the various laws on which retirements are based. Both directives are brief and easy to read.

## Eligibility

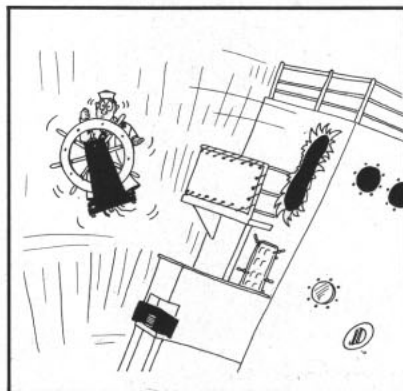
**T**WENTY YEARS of completed active duty is the main eligibility requirement for your voluntary retirement. All active duty, including active duty for training, as a commissioned officer, warrant officer, enlisted man or aviation cadet (appointed or enlisted), in the Navy, Marine Corps, Army, Air Force or Coast Guard, or in Reserve components, is creditable. Time spent on inactive duty as a Reservist does not count toward the 20 years.

As a general rule, the retirement eligibility policy outlined in SecNav Inst. 1811.3D will apply. But, you do not automatically have an indisputable right to retire at any time you choose, simply because you've completed 20 years of active duty. Your retirement may be delayed for some time, depending on the circumstances.

A delay may be encountered if you are in a key billet that can't be filled by someone else at the drop of your hat, or if you have special skills or background the Navy needs. And, if you have received transfer orders or are under a payback obligation, you can expect your request for retirement to be deferred until you complete your normal tour of duty or satisfy any service obligations.

In any such case, an effective date

All-Navy Cartoon Contest  
John L. Draves, QM2, USN



"Stand by for heavy rolls."

later than the one you requested will be specified by the Secretary of the Navy.

## Favorable Consideration

**A**LTHOUGH A MAJORITY of retirement requests are considered on the basis of service needs, you should expect almost automatic approval if you are in one of the following categories:

- Other than flag officer with 30 years of active service.
- Flag officer with 30 years of active service and at least five years as flag officer.
- Captain with at least two years' service in grade.
- Officer who has twice failed selection for promotion.
- Officer whose assignability is limited. (Over-age in grade, deteriorated health, etc.)
- Officer who has hardships of compassionate or unusual financial nature which would definitely be alleviated by retirement.

Otherwise, your retirement request will be considered solely on the basis of service needs. Final approval rests with the Secretary of the Navy.

## Your Request

**I**F YOU QUALIFY for voluntary retirement under the provisions of SecNav Inst. 1811.3D and BuPers Inst. 1811.1B, you may submit your request to the Secretary of the Navy via your chain of command and the Chief of Naval Personnel. Your request should be submitted at least three months in advance of the de-

sired date of retirement to allow plenty of time for processing. If a contact relief is required, your request should be submitted six months in advance.

Don't submit your request for voluntary retirement contingent on some other administrative procedure, such as the action of a continuation board. It will serve only to confuse the issue and delay processing.

All retirements (except for disability) become effective on the first day of the month.

Sample wording for your request is contained in BuPers Inst. 1811.1B. When your CO affixes his endorsement, he will express your command's position with regard to a relief or any other factors that mean orderly retirement from the command standpoint.

Your request is forwarded to the Active Non-Disability Retirement Branch of this Bureau (Pers B85), which notifies the detail officer responsible for your case. This officer first reviews your record to make sure you are eligible. (The Officer Records Section of the Bureau provides a statement of your service.)

After the review, the Retirement Branch recommends that your request be processed for a specific retirement date. You are informed by letter that your request is being processed for that date, and why. An endorsement for the Chief of Naval Personnel is prepared, and your request is routed to SecNav for final approval.

## The Physical

**Y**OU SHOULD NOTE that your request cannot be forwarded to SecNav until you are eligible in all respects, which includes submission of a report of physical examination. It is important that you receive a complete physical far enough in advance to permit correction of minor physical defects, or, if major defects are found, to permit completion of disability retirement proceedings before the retirement date otherwise scheduled. However, the exam must be conducted within six months of the specified retirement date.

It's possible to be forced into statutory non-disability retirement while disability proceedings are still in progress. A number of procedures



have been established to forestall the necessity of cancelling your voluntary retirement and afford you the opportunity to obtain disability retirement, if qualified, before your statutory retirement date.

### Retirement Approved

**W**HEN THE CHIEF of Naval Personnel receives SecNav approval of your retirement, orders are cut showing the effective date, detachment date, laws under which retired and grade in which retirement is to be effected.

If you are outside the continental limits of the U. S., you will be ordered to the nearest continental port of debarkation for separation, unless you specifically request separation outside CONUS at your overseas duty station. If you're inside CONUS, you will probably be separated by the activity to which you are attached, or by the nearest activity capable of effecting separation.

You may be ordered for separation somewhere else only if you declare (by formal written statement to the Chief of Naval Personnel) it will be your final home of selection for retirement. To do this, the home you select must be within commutable distance of a naval activity which has facilities for making payments incident to separation and for conducting the separation physical exam. Small activities such as recruiting stations, Naval Reserve training centers, etc., are not considered suitable.

Any leave creditable (on the books) at the date you retire is compensable in a lump-sum payment not to exceed 60 days' basic pay and allowances. In other words, you will be paid for 60 days' leave; you lose

any of your leave over that amount.

Using your accrued leave for "terminal" leave before you are detached from your last permanent duty station or from your separation activity is not authorized. If you continue on active duty after the date of retirement, the lump-sum leave payment will be made when you are finally released from active duty.

### Your Retired Grade

**A**S A GENERAL RULE, you are retired in the grade in which you served at the time of retirement. However, if you had served in a higher grade previously, and the Secretary of the Navy determines your service in such grade was satisfactory, you will, before you retire, be advanced on the retired list to the higher grade.

Your pay account is closed out upon retirement and forwarded to the Navy Finance Center, Cleveland 14, Ohio. Any inquiry concerning your retired pay should be addressed directly to the Finance Center.

Unless you specify otherwise, the Finance Center will automatically continue to take care of all insurance allotments after your transfer to the retired list. Other allotments are stopped.

Your non-disability retired pay will be subject to income tax; the Finance Center will automatically withhold the tax.

### Computing Retired Pay

**I**F YOU VOLUNTARILY retire under laws cited in BuPers Inst. 1811.1B which require 30 or more years of active service, you will be entitled to retired pay at the rate of 75 per cent of the basic pay you received

while on active duty in the grade in which you retire, or to which you are advanced on the retired list.

If you voluntarily retire under laws which require more than 20 but less than 30 years of active service (see BuPers Inst. 1811.1B), you will be entitled to retired pay at the rate of two and one-half per cent of the basic pay to which you would be entitled if serving on active duty in the grade in which retired (or to which you are advanced on the retired list) multiplied by the total of the following:

- Total years of service creditable for basic pay purposes as of 31 May 1958.

- Total years of active service, including active duty for training, performed after 31 May 1958.

- Years of constructive service credited for basic pay purposes, not included in total years of service creditable for basic pay purposes as of 31 May 1958. (This clause applies only to officers of the Medical and Dental Corps.)

- One day's credit for each retirement point earned as a member of a Reserve component after 31 May 1958 through authorized attendance at drills, periods of equivalent instruction or appropriate duty performed as authorized by a naval district commandant or the Chief of Naval Personnel, completion of correspondence courses, and the 15 points per year gratuitous credit for Reserve membership. (Maximum: 60 days' credit for any one year.)

In no case may retired pay exceed 75 per cent of the basic pay on which it is based. Warrant officers who retire under any law cited in BuPers



YOU TOO can serve your shipmates well — by passing this issue of ALL HANDS Magazine to nine others.

Inst. 1811.1B will receive retired pay based upon the applicable monthly basic pay of the grade in which retired, or to which advanced on the retired list, unless the basic pay of the grade to which advanced is less than that of any warrant grade satisfactorily held on active duty. In that case, the retired pay will be based on the higher basic pay.

## The Final Move

You have one year from the date you retire (or one year from date of final detachment if continued on active duty after retirement) to complete travel to the home of your choice. Advance payment of mileage is not authorized; you must actually perform the travel to your selected home before you'll be reimbursed.

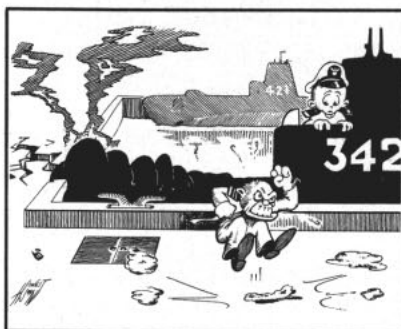
If you select a home outside the U. S., application should be submitted to an appropriate command with authority to provide overseas transportation.

Transportation of dependents and shipment of household effects to a place other than the home you select is not authorized. Your household goods may be turned over to a supply officer or carrier for shipment up to one year from date of retirement.

As a retired Navyman, you will be entitled to wear the prescribed uniform of the grade you hold on the retired list, when wearing the uniform is appropriate. You may use your military title in connection with commercial enterprises and you will be accorded privileges of available commissaries, small stores, officers clubs, and armed services exchanges.

You and your dependents may also receive hospitalization and inpatient and outpatient treatment at government medical facilities, if available.

All-Navy Cartoon Contest  
John R. Thornton, SOG2, USN



"Does this mean my performance factor will drop, sir?"

And, if space is available, you and your dependents may make one round trip each year on an MSTs ship, subject to payment of nominal charges.

You will also be subject to regulations prescribed by the Secretary of the Navy and the Uniform Code of Military Justice. You may be ordered to active duty in time of war or national emergency, but, in peacetime, may be called back only with your consent.

You will be prohibited from wearing your uniform in connection with non-military, personal or civilian enterprises, or activities of a business nature. If you reside in, or visit, a foreign country you should not wear your uniform except when attending, by formal invitation, ceremonies or social functions at which wearing your uniform is required by terms of the invitation, or by the regulations or customs of the country concerned.

Finally, you must report your address annually on 1 January to the commandant of the naval district in which you reside.

## Cold War Injury May Earn Purple Heart

Broadened conditions for award of the Purple Heart are now in effect. They cover cold war situations and instances in which United States armed forces personnel are serving with a friendly power.

Briefly, anyone serving under competent authority who is wounded, killed outright or subsequently dies of wounds received as the result of the hostile act of a foreign power against the United States is entitled to the award of the Purple Heart.

This also includes U. S. military or naval personnel serving with the armed forces of a friendly nation in armed conflict in which the United States is not a belligerent.

The first award of the Purple Heart will be in the form of a medal. Subsequent awards will be worn as gold stars on the medal or ribbon.

Posthumous award of the Purple Heart was made automatically to the next of kin of those who qualified between 5 Apr 1917 and 6 Dec 1941.

Posthumous award for wounds received on or after 7 Dec 1941 is made to the next of kin upon their application to the Chief of Naval Personnel or the Commandant of the Marine Corps, whichever is appropriate.

Change Six to SecNav Inst. 1650. 1A contains full details on the new conditions under which the Purple Heart is awarded.

## DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as an index of current Alnavs as well as current BuPers Instructions, BuPers Notices, and SecNav Instructions that apply to most ships and stations. Many instructions and notices are not of general interest and hence will not be carried in this section. Since BuPers Notices are arranged according to their group number and have no consecutive number within the group, their date of issue is included also for identification purposes. Personnel interested in specific directives should consult Alnavs, Instructions and Notices for complete details before taking action.

Alnavs apply to all Navy and Marine Corps commands; BuPers Instructions and Notices apply to all ships and stations.

### Instructions

No. 1120.15E—Discusses the eligibility requirements and processing procedures whereby qualified men and women on active duty may seek

## And Here's Some Special Advice for Warrants

Here's some behind-the-scenes retirement information for warrant officers:

- As of 1 Jul 1962, approximately 75 per cent of the men whose names appear on the warrant roster were eligible for retirement under Public Law 379, 83rd Congress, having completed at least 20 years of active service.
- You are not encouraged to retire short of the completion of 30 years. It may be to your advantage to stick it out.
- The W-4 receives a pay increase at the completion of 30 years, which naturally means a fatter retirement paycheck.
- Improvement is continuous in the rotation of warrant officers with respect to shorter tours at sea and better choice of shore billets for MACH, ELEC and BOSN.
- Warrant officers are no longer assigned ashore only to billets which were identified as "warrant" billets.
- You may be assigned to any shore billet in which you are qualified to serve by virtue of your technical specialty or maturity and experience.



permanent or temporary appointment to commissioned status in the various sections of the Medical Service Corps.

No. 1120.34—Prescribes policies and procedures whereby eligible officers may request transfer to the Army, Air Force, Marine Corps or Coast Guard.

No. 1510.69F—Solicits applications and outlines eligibility requirements and procedures whereby qualified Navy enlisted personnel may apply for assignment to the NESEP program.

#### Notices

No. 1300 (11 September)—Solicited volunteers to participate in the Navy's support of the U. S. Antarctic research program in 1963-64.

No. 1120 (27 September)—Announced the selection of personnel recommended for appointment to the grade of ensign, Medical Service Corps.

### Requirements Changed for Transfer of Line Officers

Eligibility requirements for unrestricted line officers' transfer to the Supply or Civil Engineer Corps have been changed somewhat for fiscal year 1963.

In effect, the changes update BuPers Inst. 1210.11, which listed the eligibility requirements for fiscal year 1962.

The original instruction outlines qualifications for transferring, to the Supply or Civil Engineer Corps, unrestricted line officers whose physical qualifications for line duty are marginal.

For Supply Corps officers, the date of rank for eligibles has been advanced from 1 Nov 1958 to 1 Aug 1959, and applicants must be junior to lineal number 45061-00 in the 1962 Officers' Register instead of 42372-10, as was the case in fiscal year 1962.

For officers interested in transfer to the Civil Engineer Corps, the maximum rank limitation has been lowered from lieutenant commander to lieutenant. Although the date of rank remains 1 Aug 1959, applicants must be junior to lineal number 45061-00 in the 1962 Officers' Register.

The new eligibility requirements became effective on 1 October of this year.

## HOW DID IT START

### Torpedomen Get a Bang Out of These

According to present-day definitions of a torpedo (a self-propelled underwater weapon that carries a high-explosive charge), and by stretching a point, one of its ancestors might be the floating kegs launched by David Bushnell during the Revolutionary War.

Acting on the theory that an explosion beside the hull of a ship would have greater power than the same explosion above the water line, Bushnell made up a number of powder kegs and launched them in the Delaware River to float down on the British fleet. His theory was sound, but the application faulty. The kegs did no physical damage because Bushnell hadn't properly considered the effect of the tides. (His venture shattered British morale for a time, however.)

About the only similarity between these floating kegs and torpedoes as we know them today is the name. By today's standards, they more appropriately should have been called mines.

About 1800, for example, Robert Fulton added to the development of a workable torpedo by packing black powder into wooden boxes. Rather than depend on the tides, Fulton designed his torpedo to be towed into contact with an enemy ship. Each powder box was equipped with a firing lanyard.

Later, several improvements were made on the Fulton torpedo by Frederick Harvey. Harvey added a firing lever. When the torpedo struck the hull of the target ship, the lever drove a firing pin into a detonator, which in turn exploded the main charge.

Just before the Civil War the spar torpedo was developed. This torpedo was in a class by itself. It neither floated nor was towed. It was a powder package mounted on the end of a long spar that projected from the bow of a torpedo boat. Although crude by today's standards, this spar torpedo sank two large ships during the Civil War.

Credit for the first self-propelled torpedo, and consequently the first real torpedo as we know them today, goes to Captain Lupius, of the Austrian navy. He worked out his idea while the Civil War was being fought, but lacked the mechanical aptitude actually to build the torpedo. This mechanical knowledge was provided by Robert Whitehead, a British engineer.

Captain Lupius took his plans to Whitehead in 1864 and, after two

years of work, Whitehead produced a torpedo which was 14 inches in diameter and carried 18 pounds of dynamite. It was powered by a piston engine which operated on compressed air. It ran at six knots for about 100 yards.

By 1889 Whitehead had further developed his torpedo. It then carried 200 pounds of guncotton for 1000 yards at an average speed of about 28 knots.

The U. S. Navy began to experiment with the Whitehead torpedo in 1874. The air-steam torpedoes in use today aboard some destroyers and submarines are based on Whitehead's ideas.

Whitehead was not the only man to develop a torpedo during these early years:

- The Brennan torpedo, for example, was actually put into production in 1887 for the British Army. The torpedo itself had twin screws and a double shaft, but the power source remained ashore. On each shaft of the torpedo was a spool of piano wire which ran over a pulley at the top of the torpedo amidships, through a guide at the tail, and back to shore. As the wire was pulled off the spools, the torpedo's propellers turned.

- The Howell torpedo was powered by a 100-pound flywheel. The flywheel was spun by an engine on the firing ship and brought up to a speed of 150 revolutions per second immediately before the torpedo was fired.

- The Peck torpedo was powered by steam which was supplied to the torpedo's storage tank by a boiler aboard the firing ship.

- The Sims-Edison torpedo was powered by an electric motor. Current was supplied to the motor from a dynamo on ship or ashore through a cable that could be paid out to 4500 yards.



## Kodiak Duty Isn't So Bad, Say Those Who Have Been There

**K**ODIAK ISN'T AS BAD as you've been led to believe. Rumors to the contrary have undoubtedly been inspired by rival Chambers of Commerce. Such, at least, are the claims of Kodiak enthusiasts. That relatively small group insists that "this beautiful little island with its rugged mountain scenery is warmed by the Japanese Current, which is enough to give it the reputation of being the 'banana belt' of Alaska." The winter climate is less severe than that of Illinois, they say, and the summer season is very pleasant.

We can't give a firsthand account of the Kodiak attractions because we haven't been there, but here's the picture according to the PIO of the 17th Naval District:

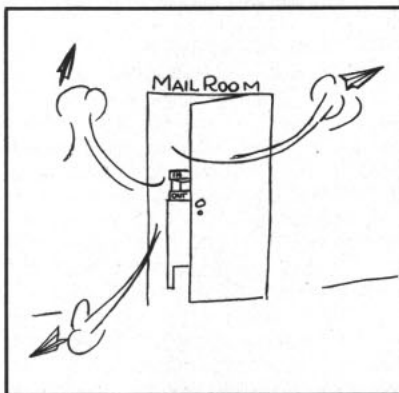
The City of Kodiak is located seven miles from the Naval Station and has a population of about 4000. There are several small department stores, grocery stores, restaurants, dress shops, beauty parlors, mail order catalogue sales office, furniture store, theater, bank, small hotel and sundry other establishments such as garages, bars and variety shops. The principal industry is fishing. Prices are comparatively reasonable and average approximately 25 per cent above stateside prices because of freight costs.

**Climate**—The climate in Kodiak is comparable to that of the Puget Sound area in northwestern Washington State. The temperature ranges from a winter low of about  $-7^{\circ}$  to a summer high of about  $80^{\circ}$ . Average winter temperature is  $34^{\circ}$  and summer  $52^{\circ}$ . The most difficult feature is the occasional storms with high winds sometimes called "williwaws." From November to April the hours of darkness are longer, with rain, snow and fog plentiful. Because of the rain (60 inches yearly average) and frequent moderate temperature, the snow does not generally accumulate in the living areas but does remain in the surrounding mountains. During the four-month summer, the hills are green and flowers are in abundance everywhere.

**Tour of Duty**—The overseas tour length for personnel permanently located in Kodiak is 24 months with dependents; 12 months for all others.

### Entry Approval for Dependents

All-Navy Cartoon Contest  
David E. Dunlap, YN2, USN



"Waddaya mean, air mail?"

**and Concurrent Travel**—Entry approval and concurrent travel of dependents are controlled by the Commandant, 17th Naval District. Entry approval and dependent travel are not authorized until government housing on the naval station or approved housing in the city of Kodiak is available. Personnel who desire to request concurrent travel and entry approval into the 17th Naval District for their dependents, are advised to have a speedletter or message sent to the Commandant, 17th Naval District, Box 14, Navy #127, % Postmaster, Seattle, Washington, or official Navy message to COM17.

The following information must be furnished:

- Name, rank/rate, file/service number.
- Authority for transfer.
- Duty station to which ordered.
- Number of dependents; sex and age of dependent children.
- Number of bedrooms desired.
- Estimated date of arrival at Seattle (port of embarkation).
- Request for permission to ship household effects.
- Request for government housing. If government housing is not available, state whether you agree to accept housing in the Aleutian Homes Project. (Information on housing is outlined elsewhere.)

If you are assigned on-base housing, an information circular on the type of housing assigned you will be forwarded via airmail after entry approval message is sent. From this, you can determine which household

effects to ship and which to place in stateside storage.

Upon receipt of authority for entry and approval for concurrent travel of dependents, you must submit an original and five copies of DD Form 884, together with six certified copies of orders, to the Commandant, 13th Naval District (Code 114). In addition, forward one copy of DD Form 884 and one certified copy of orders to the Commandant, 17th Naval District (Code 10).

Because of the high cost of living in Seattle, dependents should not plan to arrive there until notified that entry into the 17th Naval District is authorized. Authorities in Seattle (Com 13) will not embark dependents until they receive authorization for entry from Com 17. If you don't want to bring your dependents, you are entitled to move them and your household effects to a place designated by you in accordance with *Joint Travel Regulations*.

### Government Transportation—

Most military personnel travel to and from Kodiak by government air. Travel for dependents from Seattle to Kodiak is controlled by Com 13. He will decide the mode of transportation to be used. If government transportation is not available, he will authorize commercial air. A nominal charge is made for subsistence while in transit. However, increasing numbers of military personnel and dependents travel by privately owned vehicle to and from Alaska via the Alcan Highway. Currently mv *Expansion* (a converted Army FS) runs between the mainland and Kodiak on a monthly schedule.

The Alaskan Steamship Company operates between Seward and Kodiak on a 21-day schedule. This schedule is subject to change without notice. All applications for shipment of privately owned vehicles from the mainland to Kodiak should be made at the Military Sea Transportation Service Office located at Building 5800, Command Building, Room 131, Elmendorf Air Force Base, Anchorage, Alaska. Further information concerning shipment of vehicles from the mainland to Kodiak can be obtained by writing to the Commanding Officer, MSTS Office, APO 942, % Postmaster, Seattle, Wash.



**Air Travel**—Normally, luggage is limited to 65 pounds per person. The Chief of Naval Personnel may be requested to authorize excess allowance in basic orders.

**Ship Travel**—All ship travel to Kodiak has been discontinued; however, MSTs occasionally has a ship available on an unscheduled basis.

**Household Effects**—As soon as you receive your orders, you should contact the Household Effects section of the supply department at the nearest naval activity for information regarding shipment of privately owned automobile, personal effects and household goods.

(NavSandA Publication 380, entitled "It's Your Move!" contains the information you need.) Urgently needed items of household goods may be forwarded from your last duty station to the first port of embarkation (normally Seattle), thence your shipment is forwarded to Kodiak via commercial ship at government expense. This shipment should include necessities such as linens, silverware, china, kitchen utensils and other light equipment which you will need for housekeeping upon arrival, and should be shipped at least six weeks before your arrival in Seattle for transportation to Kodiak.

A limited amount of china, kitchen utensils and other essentials are available from Special Services while awaiting the arrival of the rest of your household effects. Washing machines and driers are no longer furnished in other than senior officer government quarters. Machines and electric clothes driers in good operating condition should be brought to Kodiak as repair facilities are very limited. A deep freeze is considered a desirable convenience. If you do not have one, they may be purchased from the Navy Exchange at Kodiak. An upright freezer should be considered since they occupy a lesser amount of floor space. There are no commercial storage facilities for household goods.

Government storage facilities are limited and are unsatisfactory for prolonged storage. Therefore, the type of housing you will occupy will determine which items to ship and which to place in storage. If you are going to live in station housing, the Navy will provide storage locations other than Kodiak for non-essential

items at government expense. Apply to the nearest household effects shipping activity for the required forms.

**Housing**—All married officers, married enlisted men in pay grade E-4 with over four years of service and all personnel in higher pay grades are eligible for government quarters. Housing on the naval station, however, is limited, with government quarters available for only about 40 per cent of the eligible personnel. Government quarters are apportioned to each tenant activity of the naval station on a billet basis, with the actual assignment controlled by each commanding officer or officer in charge.

**BOQ/WOQ**—Bachelor quarters for 53 men and 10 women officers are available in the main BOQ. A BOQ annex is normally filled to capacity by Fleet personnel. The Commissioned Officers' Mess Open and Closed are located nearby.

**Four-Plex Public Quarters**—These are two-story buildings; some are occupied by officers and others by enlisted personnel, and are located on the naval station within walking distance of most facilities. They are completely furnished with electric range, water heater and refrigerator. All are equipped with a full basement and ample storage space.

**Duplex Public Quarters**—Some of these quarters are occupied by officers, and others by enlisted personnel, and are located on the naval station within walking distance of most facilities. They are completely furnished with electric range, water heater and refrigerator.

**Lake Louise Public Quarters**—These quarters are single-story and are occupied by officers only. They are located on the naval station about

three and one-half miles from the Administration Building. They are completely furnished with electric range, water heater and refrigerator.

**Low Cost Defense Rental Housing (Lake Louise)**—These units are single-story, duplex type and are occupied by officers. They are located on the naval station about three and one-half miles from the Administration Building. Rent charges vary from \$31.05 to \$40.50. Telephone, furnace oil and electricity charges vary with individual families and are in addition to the rent. They are furnished with oil space heater, electric range, water heater and refrigerator. Privately-owned washer and drier may be installed at tenant's expense.

**Low Cost Defense Rental Housing (Civilian Hill)**—These housing units are occupied by enlisted men and are located on the naval station within walking distance of most facilities. Rental is the same as at Lake Louise. Housing is of the single-story, duplex type. They are completely furnished with either oil burning kitchen range or electric range, oil space heater and hot water heater and refrigerator. Privately owned washers and driers may be installed at tenant's expense. Oil ranges are being replaced on a funds-available basis with electric ranges.

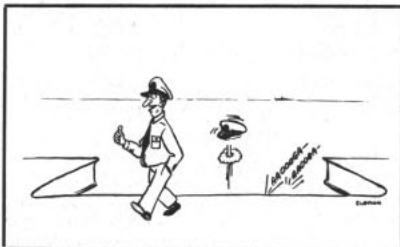
**Inadequate Quarters**—These units are Public Quarters that have been declared inadequate and are being retained for an indefinite period. They are occupied by both officer and enlisted personnel at a reduced BAQ. These units are furnished with electric stove, refrigerator and basic furniture items.

**Aleutian Homes Project**—In the City of Kodiak, there is a 342-unit housing project (Aleutian Homes) which has helped to alleviate the housing shortage. These units consist of two bedrooms without garage, unfurnished except for refrigerator and stove, and rent for \$110.00 monthly; two bedrooms with garage, unfurnished, rent for \$130.00 monthly; and three bedrooms with garage, unfurnished except for stove, refrigerator, semi-automatic washer and clothes drier, rent for \$150.00.

The cost of utilities for these units averages approximately \$85.00 per month.

Because of the above expenses, it is recommended that you have at

**All-Navy Cartoon Contest**  
Richard F. Claydon, ADRC, USN



“. . . and this here's the number three elevator.”

least \$300.00 to pay the first month's rent and deposits.

In addition to the above housing, a limited number of privately owned houses are available for rent in the city of Kodiak.

**Roads**—The only paved roads are on the naval station, between the station and town and in the city of Kodiak. The others are gravel, composed of sharp rocks that frequently bruise, cut and puncture automobile tires unless they are relatively new or thickly treaded snow tires. Winter travel is generally confined to the road between the station and Kodiak.

**Automobiles**—Automobiles are a necessity. Government transportation is limited and strictly controlled. Private cars may be transported from Seattle to Kodiak at government expense on a space required basis. Military personnel in pay grade E-4 with four years or less of service and pay grades E-3, E-2, or E-1 are not authorized shipment of privately owned vehicles at government expense.

Cars should be solid, sensible types and in excellent mechanical condition. Purchase of a new car is not recommended because of the rough roads, weather and volcanic dust, and because garage facilities and parts are limited. Your car should be undersealed before shipment. Snow tires or chains are necessary because frequent icy road conditions exist from December through March. Gasoline and oil are available on the station at prices comparable to those in Seattle.

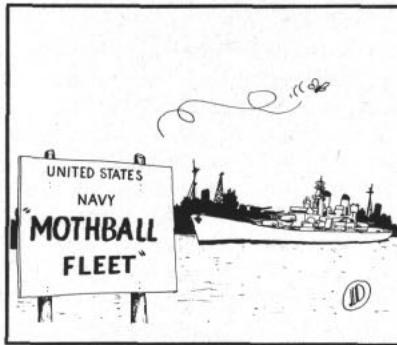
**Schools**—Grade school children (kindergarten through the eighth grade) living on the station go to the station school while those living in the city of Kodiak attend the city schools. An average of 300 students attend the station school.

High school students attend the Kodiak High School with free bus service provided from the naval station. The high school is fully accredited and has a program acceptable to colleges throughout the United States.

A Catholic grade school is maintained in Kodiak. The curriculum provides instruction for children in the first through the eighth grades.

**Churches**—Chaplains conduct a full program of services and religious education on the station and arrange

All Navy Cartoon Contest  
John Lynelle Draves, QM3, USN



regular services for groups of various denominations. Many servicemen and their families attend churches in Kodiak.

**Food and Essentials**—The commissary and Navy Exchange carry adequate stocks and are conveniently located. The commissary stocks a full line of meats, canned goods (including baby food), dairy products, staples and frozen foods as well as fresh fruits and vegetables when obtainable.

The Navy Exchange operates a retail store, barber shop, beauty shop, cobbler shop, special order desk, laundry, dry cleaner, tailor shop, garage, service station, cafeteria, photo finishing facilities, a watch repair shop and equipment rental facilities. In addition to the merchandise normally found in an Exchange in the continental United States, the Navy Exchange at Kodiak carries such additional items as heavy appliances, television, stereo and a complete line of men's, ladies' and children's clothing.

**Recreation Facilities**—A ceramic shop, cabinet shop, garage, little theater, bowling alleys, ski chalet, and recreation camp are all available. Bring your guns, fishing tackle, skis, personal bowling balls and shoes—you will find use for them in Kodiak.

**Clothing**—Kodiak is not a perennial icebox and your present wardrobe, with some additions, should prove adequate. The over-all emphasis should be on fall clothing because the summer months are rarely hot and winter months not severely cold. A warm overcoat is a must item, as are heavy-soled walking shoes, rain coat and galoshes. Heavy clothing is

not needed for daily routine living, but sessions at the ski chalet or overnight camping trips make it advisable to bring woolen suits, sweaters, woolen socks, warm gloves, woolen scarves and ear muffs. For a child, a ski suit is an ideal garment. Since much of the recreation at Kodiak includes outdoor excursions, shoe packs with rubber bottoms, hip boots and chest-high waders for fishing trips are highly recommended. Down- or alpaca-lined three-quarter length parkas are desirable as protection against the cold winds. Although these items may be purchased locally, it is advisable to bring them since the selection of sizes and styles in available stock is limited. Special orders from outside take approximately a month for delivery.

Generally speaking, the accent is on informal dress. For women, sweaters, slacks, and skirts will serve during the winter months. But don't forget cottons—they are worn through the summer, and some days it is warm enough to wear shorts or a bathing suit.

The one item which poses a problem is shoes. Although the Navy Exchange has a shoe department and there are four shops in town which sell them, styles are rather limited and the stock is quickly depleted. If anyone in your family wears an unusual size, it is wise either to buy ahead or to make arrangements with your favorite shoe store. Men usually wear jackets and sport shirts. Bring along a radio and television set. All radios and TVs will pick up the local AFRS and AFRS-TV. Many stateside stations may be heard over shortwave radio, with reception good during the winter months.

**Scenic Beauty**—Photographers (both still and movie) will have a field day here. The scenery is spectacular, especially in the summer when everything is green. Mountains (at your back door), lakes, seashore and streams offer an unending variety of color and composition for photographers. Wild flowers are in abundance for about five months each year. Cameras and film are available locally.

**Clubs**—The station has an Officers' Club, CPO Club, EM Club, and a Marine Club, all within walking distance of most barracks and housing



units. All are modern clubs offering bingo, food, drinks, and occasional entertainment by local talent and USO shows. All are heavily patronized and thoroughly enjoyed. The Kodiak Conservation Club is a sportman's club dedicated to conservation measures, especially the planting of fish in lakes and streams.

**Medical Care**—The naval station has a well-equipped hospital which furnishes medical care to military personnel and their dependents. Illnesses or injuries which require care beyond the capabilities of the hospital are transferred to the U. S. Air Force 5050th Hospital, Elmendorf Air Force Base, Anchorage, Alaska, or to a larger naval hospital, usually one on the west coast.

**Immunizations Required**—As directed in current BuMed Instructions, you should have completed smallpox, typhoid-paratyphoid and tetanus-diphtheria immunizations before departure for Kodiak. If under the age of 40 you should have completed the basic series of poliomyelitis immunization. However, travel should not be delayed for any except the first dose. Required doses will be given after arrival at Kodiak. Children under 16 years of age are required to be Schick negative or immunized against diphtheria.

**Dental Care**—Dental care is available to all military personnel as well as to their dependents. However, military personnel receive priority in treatment and dependent care must necessarily await space available; this tends to make the waiting period for routine dependent care some two or three months. Emergency care is provided immediately. Orthodontic treatment is not available on the island. Cost of travel to Anchorage for this purpose makes it prohibitive.

### List of New Motion Pictures and TV Series Available to Ships and Overseas Bases

The latest list of 16mm feature movies and TV series available from the Navy Motion Picture Service is published here for the convenience of ships and overseas bases.

Two one-hour TV shows are packaged together for a 108-minute program, but may be shown only aboard ship. TV series available for selection are: *Perry Mason*, *The Dick Powell*

*Show* and *The Detectives* (melodramas) and *Rawhide* and *Gunslinger* (westerns).

Movies in color are designated by (C) and those in wide-screen processes by (WS). They are available for ships and bases overseas.

#### Motion Pictures

*The Music Man* (2086) (C) (WS): Musical; Robert Preston, Shirley Jones.

*Jessica* (2087) (C) (WS): Comedy Drama; Maurice Chevalier, Angie Dickinson.

*The Hellions* (2088) (C) (WS): Melodrama; Richard Todd, Anne Aubrey.

*Night Creatures* (2089) (C): Melodrama; Peter Cushing.

*Mr. Hobbs Takes a Vacation* (2090) (C) (WS): Comedy; James Stewart, Maureen O'Hara.

*The Huns* (2091) (C) (WS): Drama; Chelo Alonso, Jacques Sernas.

*Hand of Death* (2092) (WS): Drama; John Agar, Paula Raymond.

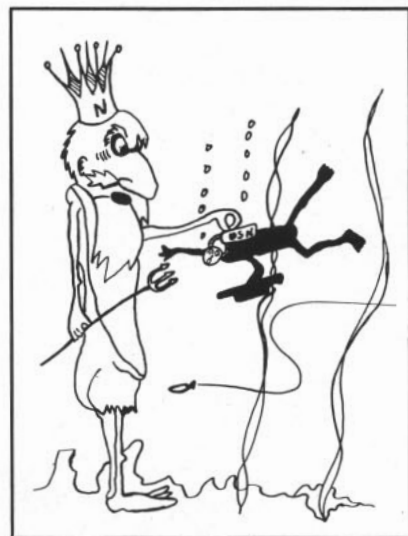
*Doctor in Love* (2093) (C): Melodrama; Michael Craig, Virginia Maskell.

*Advise and Consent* (2094) (WS): Drama; Henry Fonda, Charles Laughton.

*Siege of Syracuse* (2095) (C) (WS): Melodrama; Rossano Brazzi, Tina Louise.

*The Centurion* (2096) (C) (WS): Melodrama; Jacques Sernas, Genevieve Grad.

All-Navy Cartoon Contest  
Flemon E. Dale, DMSN, USN



"... And just what species are you?"

*Bird Man of Alcatraz* (2097): Drama; Burt Lancaster, Karl Malden.

*Boys' Night Out* (2098) (C) (WS): Comedy; Kim Novak, Tony Randall.

*It Happened in Athens* (2099) (C) (WS): Comedy; Jayne Mansfield, Nico Minardos.

*Last of the Vikings* (2100) (C) (WS): Melodrama; Edmund Purdom, Cameron Mitchell.

*Counterfeit Traitor* (2101) (C): Melodrama; William Holden, Lilli Palmer.

#### Television

5272: TV-1 *Perry Mason*—Waylaid Wolf. TV-2 *The Dick Powell Show*—Up Jumped the Devil.

5273: TV-1 *Perry Mason*—Impatient Partner. TV-2 *The Dick Powell Show*—Open Season.

5274: TV-1 *Perry Mason*—Shapely Shadow. TV-2 *The Dick Powell Show*—Death in the Village.

5275: TV-1 *Perry Mason*—Captain's Coins. TV-2 *The Dick Powell Show*—The Price of Tomatoes.

5276: TV-1 *Perry Mason*—Tarnished Trademark. TV-2 *The Dick Powell Show*—Seeds of April.

5277: TV-1 *Perry Mason*—Glamorous Ghost. TV-2 *The Dick Powell Show*—The Legend.

5278: TV-1 *Perry Mason*—Jealous Journalist. TV-2 *The Dick Powell Show*—Ricochet.

5279: TV-1 *Perry Mason*—Malicious Mariner. TV-2 *The Dick Powell Show*—John J. Diggs.

5280: TV-1 *Rawhide*—Long Count. TV-2 *The Dick Powell Show*—Three Soldiers.

5281: TV-1 *Rawhide*—Twenty Five Santa Clauses. TV-2 *The Dick Powell Show*—Goodbye Hannah.

5282: TV-1 *The Dick Powell Show*—Fifth Caller. TV-2 *Gunslinger*—Rampage.

5283: TV-1 *The Dick Powell Show*—Squadron. TV-2 *Gunslinger*—Death of Yellow Singer.

5284: TV-1 *The Dick Powell Show*—View from the Eiffel Tower. TV-2 *The Detectives*—Hit and Miss.

5285: TV-1 *The Dick Powell Show*—330 Independence S.W. TV-2 *The Detectives*—Walk a Crooked Line.

5286: TV-1 *The Dick Powell Show*—Safari. TV-2 *The Detectives*—The Queens of Craven Point.

5287: TV-1 *The Dick Powell Show*—The Clocks. TV-2 *The Detectives*—Crossed Wires.

## Seavey Segment 1-63 Has News as Well as Cutoff Dates for Many a Man

Now's the time to review your status on Seavey if you're in one of the 24 ratings of Seavey Segment One. Sea duty commencement date cutoffs (which determine your basic eligibility for transfer ashore) have been established for Segment 1-63 (see box). This segment becomes effective on 1 Feb 1963; during February, orders ashore will be issued for transfers to be effected in June 1963.

The cutoff dates for Segment 1-63 are contained in BuPers Notice 1306, issued in September 1962. This directive also notes that:

- A 36-month shore tour has been established for men in the DS rating.
- The minimum shore tour for recruiters will be 36 months, effective 1 Jan 1963.
- Only men in these rates will be considered for recruiter billets: BMC, BM1, TMC, TM1, SMC, SM1, GMCC, GMG1. If you're in

### Beat the Cutoff Dates

If you're a GMMC, GMM1, FTC, FT1 or FT2, you may be able to beat the sea duty commencement date cutoffs for Segment 1-63 by volunteering for special instructor duty.

Men in these rates who commenced their sea tours before July 1961 and qualify for instructor duty in accordance with the *Enlisted Transfer Manual* (Art. 5.22), can be nominated for instructor duty by their commanding officers.

COs should submit nominations directly to the Chief of Naval Personnel (Pers B-213), with a copy to the cognizant Enlisted Personnel Distribution Office. If you're nominated, you will not be reported in the Seavey.

one of these rates and can qualify for recruiting duty in accordance with Chapter IV of the *Enlisted Transfer Manual*, you are urged to indicate

recruiting duty as your preference.

● Petty officers 3rd class through chief of the YN, PN, SK and DK ratings will be considered for duty at main recruiting stations—but not for duty as recruiters. Assignments will be made on a "work in your rate" basis.

● Yeomen who indicate a duty preference for the Washington, D. C., area can expect orders soon after the effective date of the Seavey (1 Feb 1963). A clear record and a background investigation within the last five years are requirements for duty in Washington. Yeomen who have not had the background investigation should request one at the time they submit their rotation data cards.

You are reminded that your eligibility for security clearance must be recorded in block 15 of your rotation data cards.

No inquiries relating to your status on Seavey 1-63 can be answered before the effective date of 1 Feb 1963.

The May 1962 ALL HANDS contains a complete rundown on Seavey if you desire more details.

## Commencement Date Cutoffs for Seavey Segment 1-63

Here's a roundup of sea duty commencement date cutoffs.

If your sea duty commenced on or before the date indicated for your rating, and you are not al-

ready in a previous Seavey, you should prepare rotation data cards and forward them to your Personnel Accounting Machine Installation for processing.

If you're still awaiting orders under previous year's Seavey, it's not necessary to submit new data cards.

RATE	DATE	RATE	DATE	RATE	DATE
BMC	Jun 60	RD1	Mar 58	RM1	Feb 60
BM1	Sep 57	RD2	Aug 58	RM2	Aug 60
BM2, 3, SN	Sep 55	RD3, SN	May 59	RM3, SN	Apr 61
QMC	Dec 59	FTC	Dec 58	YNC, 1, 2, 3, SN	Jun 61
QM1	Jun 58	FT1	Sep 58		
QM2, 3, SN	Mar 58	FT2	Jan 59	PNC, 1, 2, 3, SN	Jun 61
		FT3, SN	Dec 58		
SMC	Dec 59			SKC	Mar 60
SM1	Mar 57	MTC, 1, 2, 3, SN	Jun 61	SK1	Oct 59
SM2, 3, SN	Dec 56			SK2	Dec 59
		MNC, 1	Jun 61	SK3, SN	Mar 60
GMTC, 1, 2, 3, SN	Jun 61	MN2	Sep 60		
		MN3, SN	Jun 61	DKC	Mar 61
SOC	Dec 59			DK1	Sep 60
SO1	Mar 60	ETC, 1	Jun 61	DK2	Mar 60
SO2	Jan 59	ET2	Jun 60	DK3, SN	Dec 60
SO3, SN	Oct 59	ET3, SN	Jun 61		
				JOC, 1, 2, 3, SN	Jun 61
TMC	Mar 60	DSC, 1, 2, 3, SN	Jun 61		
TM1	Jun 59			PCC	Dec 55
TM2	Dec 57	IMC	Mar 60	PC1, 2, 3, SN	Dec 58
TM3, SN	Mar 59	IM1	Dec 60		
		IM2	Dec 58	LIC	Dec 60
GMC	Dec 58	IM3, SN	Apr 59	LI1	Jun 59
GM1	Mar 57			LI2	Oct 59
GM2	Sep 55	OMC, 1, 2, 3, SN	Dec 59	LI3, SN	Dec 59
GM3, SN	Dec 55				
RDC	Mar 59	RMC	Jun 60	DMC, 1, 2, 3, SN	Jun 61



# DECORATIONS & CITATIONS

## LEGION OF MERIT

"For exceptionally meritorious conduct in the performance of outstanding service to the Government of the United States . . ."

★ BURCH, William O., Jr., RADM, USN, for outstanding service as Commander, U. S. Naval Aviation Safety Center, from November 1958 to June 1962. Responsible for reducing annual naval aircraft losses to the lowest level ever attained in the history of naval aviation, RADM Burch consistently exercised a high degree of professional skill and resourcefulness throughout this period. Through his constant and meticulous attention to the problems of safety, he has been directly responsible for minimizing aircraft and aircrew personnel losses, resulting in a definite increase in operational readiness and substantial monetary savings. In stimulating command interest and attention to all aspects of aviation safety, and in initiating the Naval Air Training and Operating Procedures Standardization Programs, he has made a major contribution to the success of the Navy-wide safety effort.

★ CHEW, John L., RADM, USN, for outstanding service from 10 June 1961 to 24 May 1962 as Commander Task Force 140 (Commander Project Mercury Recovery Force). Skillfully directing the recovery operations for Project Mercury manned space flights during this period, RADM Chew, through his outstanding professional ability and inspiring leadership, made an invaluable contribution to the successful completion of these suborbital and orbital flights and to the prestige earned for the United States thereby. In addition to directing the Recovery Force from the Control Center at Cape Canaveral, he also coordinated Contingency Recovery planning and information dissemination, keeping far-flung units around the world alerted as to the flight status.

★ CLARK, Thurston B., RADM, USN, for outstanding service as Commander Fleet Air Wing, U. S. Atlantic Fleet, from January 1959 to June 1962. RADM Clark contributed immeasurably to the achievement of recent improvements in antisubmarine warfare (ASW) capabilities of the aircraft squadrons and wings under his command. Instrumental in establishing the Maritime Air Task

Force, which has led to greatly improved reaction time for special air antisubmarine operations and in long-range surveillance situations, he has made a significant contribution to the achievement of a high state of readiness in the development of ASW tactics; he has also contributed to the marked improvement in the ability of patrol aircraft to coordinate effectively with the Ocean Surveillance System; and to improvements in sub/air barrier tactics.

★ HONSINGER, Leroy V., RADM, USN, for service as Commander, Mare Island Naval Shipyard, from June 1959 to April 1962. Under RADM Honsinger's excellent leadership and guidance, the Mare Island Naval Shipyard achieved an outstanding record of production in the building, conversion and repair of all types of naval vessels, and contributed in large measure to the advancement of the *Polaris* program. Exercising a high degree of professional competence, personal integrity and diplomatic skill, RADM Honsinger demonstrated the highest concept of efficiency in management.

### Gold Star in Lieu of Fourth Award

★ WARDER, Frederick B., RADM, USN, for the performance of outstanding service as Commandant, Eighth Naval District, from January 1960 to June 1962. Exercising marked professional skill, organizational ability, tact, and resourcefulness, RADM Warder succeeded in solving a host of varied and complex problems involving military and civilian policies, thereby enhancing the prestige of the Navy. A dynamic and forceful leader, he expertly welded the various elements of his command into a highly integrated and cohesive unit, which made possible the smooth functioning that provided the most efficient service to the Fleet.

### Gold Star in Lieu of Fifth Award

★ LOUD, Wayne R., RADM, USN, for outstanding service from December 1960 to June 1962 as Commander Mine Force, U. S. Atlantic Fleet. Responsible for the increased integration of mining and mine countermeasure plans in amphibious operations, RADM Loud exercised outstanding professional skill and resourcefulness in carrying out his assignments during this period. Through his sound judgment, sense of perspective, and broad comprehension of the problems involved, inspections of overseas pre-positioned mine stocks were

successfully implemented, resulting in a mining readiness posture unparalleled in the peacetime history of the United States. In addition, he was responsible for initiating an annual Mine Force Type Commanders' conference that presented solutions of common problems to the Fleet Commanders in Chief and the Chief of Naval Operations.

## NAVY AND MARINE CORPS MEDAL

"For heroic conduct not involving actual conflict with an enemy . . ."

★ JUDD, Michael R., ET3, USN, for heroic conduct on the night of 16 Apr 1962 while serving on board *USS Porterfield* (DD 682), which was then engaged in plane guard operations for *USS Bon Homme Richard* (CVA 31) off the west coast of the United States. When a man was lost overboard from *Bon Homme Richard* at approximately midnight, Judd, partially dressed in a skindiver's suit, leaped into the frigid, treacherous waters and swam a distance of over 200 yards to reach and bring to the surface the exhausted victim. Keeping the man afloat until the rescue boat arrived, Judd, by his outstanding skill, courage and perseverance, was directly responsible for saving the life of a fellow serviceman.

★ LOWERY, Douglas E., AMCS, USN, for heroic conduct in rescuing two men from a blazing vehicle on U. S. Highway 395 in San Diego, Calif., on the early evening of 22 Nov 1961. One of the first to reach the scene of the accident in which an automobile collided with another, rolled over, and burst into flames, Lowery, along with a companion, immediately rushed to the burning vehicle, loosened the seat belts of the two occupants, and succeeded in removing the victims to safety.

★ GONZALES, Richard A., SFFA, USN, for heroic conduct during the hours of darkness on the early morning of 18 Feb 1962, while serving on board *USS Taluga* (AO 62), en route to rendezvous with the Seventh Fleet. When he and another crew member were swept overboard from *Taluga* by an unusually large wave, Gonzales, although hurt, swam to the side of his seriously injured and unconscious shipmate, and managed to keep his head above water in the heavy seas for more than an hour until both were rescued safely.

**B**OOKS SELECTED for review this month are a mixed lot, but they do succeed in presenting a good picture of what's going on today and what has happened in the past.

Take **Naval Review, 1962-63**, for example. Published by the U. S. Naval Institute, it is a substantial collection of original articles which, combined, takes a penetrating look at the Navy of today—its strength and its weaknesses. Subject matter ranges from "Naval Power as Understood by a Soldier," through the Navy supply system, to cold war in its various aspects and to such nuts-and-bolts items as a naval chronology for 1961, comments on other annual reviews, and a summary of recent changes in the world's warships. The Institute doesn't say so in so many words, but one receives the impression that it plans to make this an annual affair, which is a fine idea. All this sounds somewhat miscellaneous and perhaps it is, but taken as a whole, it still forms a relatively clear picture of what the Navy is up to. This is the sort of thing you run into: "The secret of Navy power is less a matter of weaponing than of winning millions of young men to a belief in their God-given talent to cope with problems utterly strange."

A refreshing thought.

For further background, you might take a look at **Forrestal and the Navy**, by Robert G. Albion, Robert H. Connery and Jennie B. Pope. James V. Forrestal's career in the Navy Department, as Under Secretary in 1940, through his Secretaryship, to the newly created office of Secretary of Defense in 1947, is thoroughly examined here. His role in the unification controversy of 1944-47, his relations with the President and Congressional committees, his attitude toward organizational struggles within the department, and his part in the recruitment of high-level personnel are discussed in detail.

And while we're on biography, we might consider **Unofficial History**, by Field Marshal the Viscount Slim. He's surprisingly readable and human, in spite of his somewhat exalted rank. Having presented a larger view of a major theater of war in **Defeat into Victory**, Lord

Slim now discusses the smaller battles and campaigns which are often justly dismissed in a few lines by the official histories, but can become quite dangerous. He maintains that in every battle in which the British Army is called upon to fight, two factors remain constant: It will always be fought uphill and always at the junction of two or more maps. It is assumed that the maps will refuse to fold properly. One brief quote will give the flavor: While hiding behind a wall when under shellfire with a captured Italian officer, "At each burst the Italian, with his hands still above his head, and I with my revolver still pointing at his belt buckle, in perfect unison flexed our knees and sank below the wall to rise again just in time to duck once more. We must have looked remarkably silly." A picture that deserves to go down through the ages.

From biography to history isn't a difficult transition and, for this, we also have two selections: **Bataan**, by Stanley L. Falk, and **World War I**, by Hanson W. Baldwin. **Bataan** isn't pretty reading. Although a few survivors have written about their experiences, Falk, it is claimed by his publishers, is the first to tell the whole story of what happened on the notorious Death March, of what happened on the Japanese side as well as the plight of the Americans and Filipinos. He not only describes the march, and corrects several mistaken impressions of it, but also explains the conditions and causes that led to it.

If anyone can write readable military history, certainly Hanson Baldwin can. He's had enough practice. This is quite evident in his handling of **World War I**, subtitled "An Outline of History." His thesis: Never before had a war absorbed so much of the total resources of so many combatants. Never had so many nations been involved. Never had the slaughter been so comprehensive and indiscriminate. And never had the participants staked so much for so little. World War I, says Baldwin, set in motion forces that destroyed a century of stability, changed the face of Europe, and paved the way for the Russian Revolution.

There may be some connection between the next two titles—**Our World in Antarctica**, by LTJG A. Denis Clift, USNR, and **The Guerrilla, and How to Fight Him**, edited by LTCOL T. N. Greene—but we're not sure just what it may be. Perish the thought that we may have to fight guerrillas in the Antarctic.

Although the market appears to be flooded with Antarctic books, they all are fascinating and all show us different facets of the same object. **Our World** is a commercial presentation of Operation Deep Freeze and, as such, is somewhat more relaxed than the official version. Nevertheless, LT Clift, who spent two seasons on the ice, has managed to maintain a satisfactory air of authenticity as he tells of penguins and seals, glaciers and mountain ranges, men and machines. And, as usual, the photographs are utterly superb.

**Guerrilla** is a very, very professional book, as are most books on guerrilla warfare. (We have yet to see a cute, clever or humorous book on this subject, but we're sure they will manage it someday.) This is a collection of 15 articles originally printed in the pages of the *Marine Corps Gazette*, and discusses not only theory but down-to-earth how-to-do-it technique. Examples of successful and unsuccessful campaigns are discussed, with a critique of each. To give you an idea of the approach, we quote from the introduction: "Two weapons today threaten freedom in our world. One—the 100-megaton hydrogen bomb—requires vast resources of technology, effort and money. It is an ultimate weapon of civilized and scientific man. The other—a nail and piece of wood buried in a rice paddy, is deceptively simple, the weapon of a peasant." You take it from there.

Even the fiction this month is portentous. **Magnificent Destiny**, by Paul I. Wellman, is a historical novel which concerns itself with Andrew Jackson and Sam Houston during the early years of the republic. History in its more palatable form.

**To the Coral Strand**, by John Masters, is another in his series of the Savage family in India. In this instance, Rodney Savage faces the problems the independence of India has created for a European family which has been in the country for several generations.



**ALL HANDS  
SPECIAL SUPPLEMENT**

# OUTPOST AGAINST DISEASE



**At the northern extreme of Taiwan, a small group of Navymen are working. In Cairo, Egypt, another. At Berkeley, Calif., another, and at Great Lakes, Ill., still another. All are members of Naval Medical Research Units. This report on the operations of NAMRU-2, the unit at Taiwan, and NAMRU-3, at Cairo, will give an idea of what each, in its own area of endeavor, is attempting.**

**T**O ASIAN PEOPLES suffering from a host of debilitating and killing diseases, Naval Medical Research Unit No. 2 has become a symbol of progress as real and as reassuring as many, more expensive economic, scientific and military aid programs launched by the United States since World War II.

In less than four years, NAMRU-2 has already made considerable contributions to Asian health. Among these are new diagnostic techniques for parasitic infections, a promising vaccine for trachoma, new methods of treating cholera victims, which can reduce fatalities to the vanishing point, and strides toward control of Japanese encephalitis. Considerably more important is the accumulation of a larger and more detailed knowledge of all the diseases which affect Asia. The unit's work to date has been preparatory. Its rapidly expanding reserves of knowledge, experience and skill are valuable now but will be used to increasing effect in years to come.

NAMRU-2 is, in theory, a purely practical and work-a-day organization. Its primary purpose is to obtain basic information about tropical and sub-tropical diseases to keep U. S. Navymen healthy when they visit Asian waters. But this is an over-simplified description. The only practical way to accomplish its mission is to eliminate the diseases or find effective methods of treat-

ing them. Medical research in Asia cannot be conducted in a vacuum; the discoveries and successes of NAMRU-2 concern half the area of the world and more than half the world's population.

**T**HE PROBLEM IN ASIA has special features. Medical specialists of NAMRU-2 often find themselves sailing lightly charted seas, faced with diseases for which no effective therapy has ever been developed and even a few not adequately described in western medical literature.

However, it would not be accurate to give the impression that Asia is ridden with ailments beyond the understanding or experience of western science. With few exceptions, the diseases of Asia are found in other parts of the world, often in more virulent forms. The critical element, as in other generally underdeveloped areas is the numerous sources of infection. The problem lies not in finding new and mysterious diseases but in eliminating causes of existing diseases. Again with a few exceptions, this involves finding a means of breaking the cycles of transmission and reinfection in specific ailments. In all but a handful of examples, the causes of diseases are known. What remains is to find a simple method of prevention and cure.

An emphasis on applied research for Navy and civilian doctors attached to NAMRU-2 was from the outset a virtue born of necessity. There could be little room for the approach of the ordinary practitioner. What was

Based upon *NAMRU-2, Outpost Against Disease*, United States Information Service, Taipei, Taiwan; and *Report*, Naval Medical Research Unit No. 3, Cairo, Egypt.



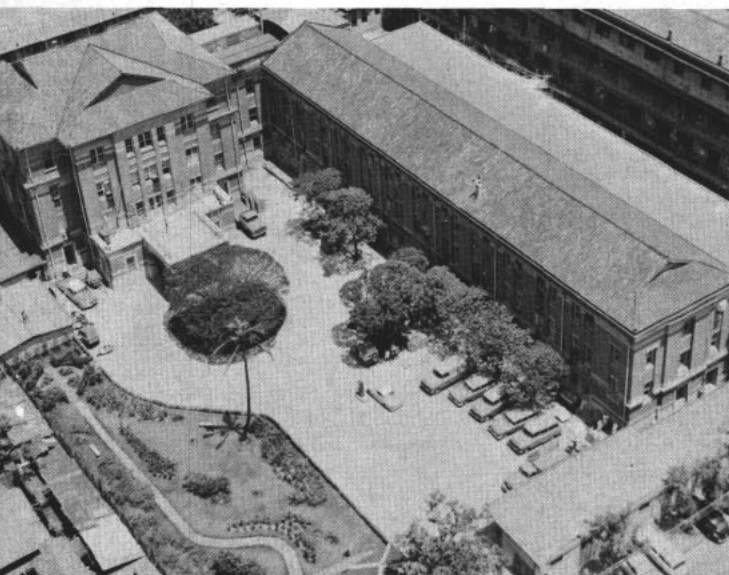
**BLACKFOOT VICTIM** — As a result of the disease, this boy has lost the big toe of his right foot.

called for was the dedication and the patience of the researcher and, in particular, the field researcher looking for practical answers to practical problems.

**T**HE WORLD OF NAMRU-2 is populated with animals and organisms but most of all with people—millions and millions of people, many of them at least mildly sick. Asia is all too well supplied with sicknesses which are the result of overcrowding, substandard diets, poor sanitary conditions and lack of adequate medical care.

In a number of Asian economies an improvement in the standard of living hinges on a switch from total dependence on agriculture as the source of income to a more balanced economy and the development of industrial potentials. If a large proportion of the working force is suffering from such crippling ailments as trachoma, which may gradually blind its victims, industrialization becomes difficult. If trachoma can be stopped, the strength of the economy will improve and the possibility of economic development will increase.

**OUTPOST HEADQUARTERS** — This building houses the laboratories to which 29 Americans are assigned.



**F**OLLOWING THE RECOVERY of Guam from the Japanese in 1944, NAMRU-2 moved there for the remainder of the war years. With the war's end and the decision that Guam was too small to support a medical research institute, it was disbanded.

Ten years later, in May 1955, an agreement was reached between the United States and the Republic of China authorizing the U.S. Navy to conduct research on tropical diseases in the western Pacific from a headquarters in Taiwan. A building formerly used as a nurses' dormitory for the National Taiwan University Hospital was leased for 20 years for one dollar.

Approximately 90 per cent of the professional, technical and administrative staff members are Chinese nationals working under contract with the Taiwan University Hospital.

At present, although NAMRU-2 stresses the development of curative methods and techniques suited to Asian conditions and pocketbooks, it ranks as one of the world's leading research laboratories, with equipment and facilities which can rarely be matched in any single institution in the Pacific area.

While research is its primary field, NAMRU-2 also has a small 20-bed ward for patients suffering from a disease under study, or who have been referred because no other suitable facilities are available for a complete clinical evaluation. More than 200 patients have been admitted in the four and one-half years since the ward was opened on 13 January 1958.

A full third of all ward patients have been victims of the mysterious black foot disease or spontaneous gangrene, which is in some senses a medical curiosity. In "blackfoot," the causes of the condition are still not clear. The patients—many of them children—who are gradually losing their fingers or toes because of impaired circulation of blood, get not only tender and efficient, but enormously detailed, scientific care.

**T**HE CLINICAL INVESTIGATION DEPARTMENT in charge of the hospital ward also cooperates with other medical institutions, either by lending equipment, such as the iron lung owned by the ward, or assisting in diagnoses where outside opinions are requested. To some extent, it might be considered the operational arm of the organization as opposed to the more theoretical research departments. The distinction, however, is not entirely valid because NAMRU-2 research is no ivory-tower affair.

NAMRU-2 has yet to uncover any new or astonishing ailments unknown to western science, nor are any such discoveries really expected. Beyond a few unreported species of intestinal parasites of minor importance in determining Asian health levels, and the isolated instance of blackfoot disease, for which no good reason has yet been found, NAMRU-2's operations are conducted in known areas. The problem has been to find a means to counter the effects, and in particular, to find inexpensive curative or preventive techniques suited to use by large blocs of Asian populations infested by a given disease.

Since the inception of the research unit its interest has been centered on the highly infectious and generally more lethal diseases of the East. High on this list would be cholera, Japanese encephalitis, smallpox and other epidemic diseases for which reservoirs of infection still persist. However, the largest single research program



now in progress is a determined effort to cope with the elusive and destructive virus which causes trachoma, a progressive infection of the eye tissues which may eventually cause total blindness. At least 300,000,000 Asians suffer from chronic trachoma. If victims in other areas of the world are added, it may well rank as the most prevalent disease of humanity, with the exception of the common cold.

**O**THER RESEARCH AREAS include studies of viral diseases in general and the wider range of diseases caused by intestinal parasites. Blackfoot disease, already mentioned, gets a large share of attention, but chiefly because the condition is apparently unique to Taiwan.

Trachoma is one of the major infectious diseases which have strongly resisted modern scientific techniques. It can be treated medically or by a combination of medicine and surgery in more advanced cases, but the results are uncertain. The disease may recur or, as in many infected areas, the patient is constantly exposed to reinfection and gets it again after the treatment has been stopped.

NAMRU-2 was among the first to work on trachoma vaccines. A number of types have been produced experimentally over the past three years. The most promising has been in use for more than a year, and some 1500 individuals have been inoculated. However, it is still too early to determine the exact degree of the vaccine's effectiveness.

One experimental program recently initiated by the department of virology is an attempt to grow the virus in tissue cultures. If this proves successful, it will be possible to improve the purity of the vaccine and, in all probability, reduce the present cost of production.

In contrast to trachoma, which "only" blinds and maims, cholera is an epidemic killer. Although slowed considerably in recent years by improved sanitation, it remains, nonetheless, a frequently recurring threat in many parts of the world, particularly in south and south-east Asia. Some 12,000 deaths were reported in 1960 from Pakistan. Other outbreaks have occurred in Thailand and India in recent years.



**CHOLERA CHECK** — NAMRU-2 Researchers in Thailand joined SEATO cholera lab in spot investigation.

**S**INCE THE PREVENTION of waterborne epidemic diseases is a major public health problem, calling for national or international operations on a large scale, NAMRU-2 has contented itself in the main with working out better techniques for treating patients and studying the disease itself.

The patient can be nursed through to recovery provided he gets care which can be given almost anywhere. But, from the viewpoint of a research scientist, this is barely a good start. For one thing, even the best method of treatment may not succeed under major epidemic conditions, when the patients are too numerous or too inaccessible to be reached by medical personnel. Another is the question of what happens when a human being gets cholera. How do the villainous little micro-organisms work? And, most important of all, what ideas can be dredged up to see to it that they don't get started on their work at all?

Most of these are still questions without firm answers, but the NAMRU-2 personnel are exploring avenues which may eventually yield definite solutions.

**A SPECIMEN QUEST** takes this Navyman through a remote community on Turtle Island, near the Taiwan coast.



While the health problems of Asia are mainly caused by diseases that are in some way linked to low living standards or poor sanitation, at least one highly lethal ailment has almost no relation to such concerns.

Japanese encephalitis has no particular association with Japan; it is found commonly throughout almost every part of the Far East. In infected zones virtually every adult has at one time had the disease, usually in mild form, and has acquired immunity. Consequently, seriously affected victims are almost always youngsters or unexposed adults from other areas who have no immunity. Each year an almost predictable number of American visitors to the Far East fall victim to the disease. About half of such cases either do not recover, or are left with some degree of brain damage. No effective therapy is known.

Since Japanese encephalitis is carried by a mosquito, a promising approach to reducing the number of cases would be to break the cycle of transmission by eliminating this key link. NAMRU-2 is trying to find solutions to this problem.

One phase of current NAMRU-2 research is a day-in-day-out checking of encephalitis viruses recovered from thousands of mosquitoes, most of them from Taiwan or Okinawa. In 1960, insect traps maintained in Okinawa and Taiwan yielded a harvest of over 100,000 mosquitoes, which were later separated by species and tested for infection.

**B**ECAUSE OF POOR SANITATION, the Far East abounds in a variety of troublesome and often dangerous parasitic organisms. Some, like the amoebae found in at least 20 per cent of Asian intestinal tracts, may remain there for years without causing any symptoms of illness. Others cripple or kill.

Active work in NAMRU-2 is currently centered on three relatively frequent parasitic ailments which share a common characteristic, in that the responsible organism passes through a cycle in the body of a freshwater snail.

The over-all problem of parasitic infections is mammoth. Conservatively speaking, the health of at least half the population of Asia—well over 500,000,000 people—is affected by parasites of one kind or another.

**MOSQUITO TRAPS** of this type provide the NAMRU-2 laboratories with infected encephalitis carriers.



**KOREAN DOCTOR** studies mosquitoes raised in laboratory in an effort to combat Japanese encephalitis.

Even the work of finding and classifying all the types is still far from complete. Although the major species are known, there are a great variety of species and sub-species with differing characteristics.

While snail control as a primary campaign device appears out of the question until more effective exterminating techniques can be evolved, it may be of value in local applications. NAMRU-2 is now experimenting with new American and European compounds developed for use in Egypt and the Near East, where this problem is even more serious than in the Orient. The results have not been encouraging. Asian snails have demonstrated a much higher tolerance for these preparations than snails in the Near East.

**A**NY ASPECT OF DISEASE in Asia is included in NAMRU-2's area of interest—at least to some degree. Both staff members and research fellows are selected with a view toward having as wide a range of talents and experience as possible. As a consequence, and on what might be termed the more purely medical side, a portion of the unit's attention has been given to targets of opportunity—unusual clinical materials which happen to turn up in the Asian areas.

The perils of death from snakebite or poisonous insects are not considered sufficient to make this a major NAMRU-2 preoccupation, but the subject is not entirely neglected. Asia is more than adequately supplied with poisonous reptiles, including the krait, Russell's viper and the much-feared but not too commonly seen king cobra. There are also poisonous spiders and even venomous snails.

Life for a majority of NAMRU-2's research workers consists of about equal intervals in the relative comfort, peace and seclusion of the laboratory headquarters in Taipei or bouncing in jeeps or station wagons over unpaved rural roads in any corner of Asia. Useful results in the laboratory depend on a steady flow of innumerable specimens and other forms of raw information from the field. In Asia, laboratory men double as both collectors of data and observers of the results of their work. Some spend very little time at home.

Even this description is not so romantic as it might sound. The travel usually involves the same bounces on the same rough roads en route to the same places for more of the same kind of investigations. For obvious



reasons, including the need to hold down expenses, NAMRU-2 field research teams have done most of their touring in back-country Taiwan.

**B**UT NAMRU-2 STAFFERS do get abroad on occasion, almost invariably to spots well off the beaten tourist trails. One major field investigation conducted in 1960 was a six-week study of biological and geomedical factors in British North Borneo. Some 13 staff members from various departments formed the research team invited by the North Borneo government. Primary emphasis was placed on the collection of human and animal parasites and gaining information on diseases prevalent in the area. Viewed as a preliminary investigation and as a source of study materials, the trip was extremely successful.

While the Borneo trip was the largest investigation effort staged thus far by NAMRU-2, smaller-scale field surveys have been continuing for the past five or six years. Countries visited include Japan, Korea, the Philippines, Thailand, Malaya, India and Pakistan, in addition to such offshore islands of Taiwan as the Pescadores and Orchid Island.

One interesting outgrowth of NAMRU-2's collecting efforts is the emergence of the parasitology department as a major supplier of specimens of all varieties to scientific research institutes in almost every corner of the world. In the last four years, to give a partial list, NAMRU-2 has collected, and shipped to other institutions, over 1500 mammal skins, 2500 catalogued and prepared wild and domestic birds and thousands of fish and reptiles. Even more important, and much more numerous, have been a multitude of infected snails, parasitic worms, mites, ticks and microscopic organisms beyond number.

The list of recipients of these unusual collections is an international one. Bird lice, for example, are sent to the British Museum in London. Roundworms to McGill University in Toronto, Canada. Mites are in demand in Panama, where the U.S. Public Health Service laboratory specializes in their study. Ticks go to NAMRU-3, the NAMRU-2 sister organization and counterpart for the Near East, in Cairo. Lung mites from snakes are supplied to a research institute in Malaya.

**N**AMRU-3, IN CAIRO, EGYPT, has a similar objective in life, but the details are slightly different. It is located near a 1500-bed hospital and is able to provide medical care to enough willing patients for extended periods to enable it to provide controlled observations on diagnostic procedures, therapy and follow-up.

The combination of an almost endless supply of patients with a large variety of diseases and the opportunity to make lengthy studies of these patients has resulted in many useful findings.

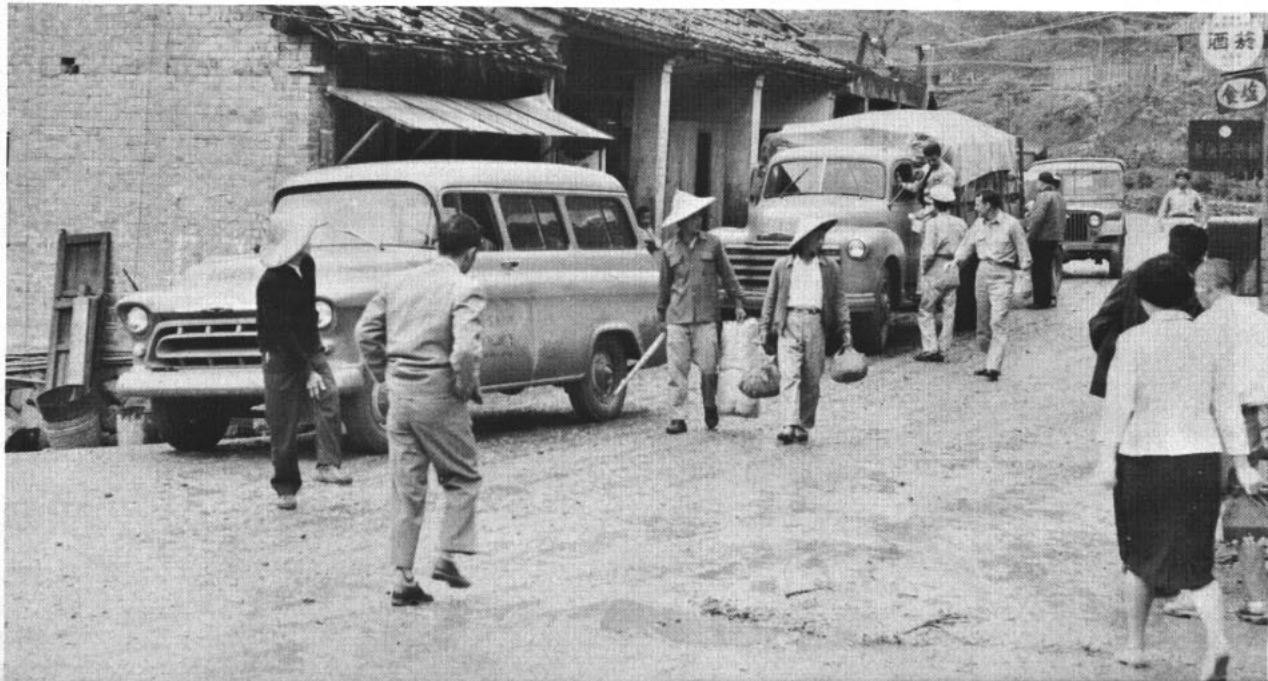
Because of the nature of the diseases found locally, NAMRU-3 has been able to concentrate its efforts in those fields of biology dealing with arthropods (insects and spiders) and their relation to man's health. As is the case with NAMRU-2, it is one of the few foreign posts where naval researchers interested in exotic diseases can work actively in their fields. Excellent training is provided during their tour of duty, and many gaps in knowledge of global epidemics are closed by their investigation.

The present staff is comparatively small; 136 persons, of whom 27 are U. S. service personnel and several are U. S. civilian scientists. The rest are Egyptian nationals. Approximately two-thirds of these people are engaged in research or support of research, and the others are on the administrative or maintenance staff.

Supplementing research, NAMRU-3 serves as a training and demonstration center. Egyptian doctors are accepted for advanced training each year. Other Egyptian and Near East technicians are given courses in laboratory methods and techniques. The department of clinical medicine demonstrates the latest U. S. medical techniques to practitioners throughout the Near East. Biological research related to medical problems is undertaken by the various departments.

The Egyptian community has over the years collaborated on problems common to both the Near East and the United States. In this manner, NAMRU-3 has become a prototype and an example of the best in international cooperation. This growing atmosphere of mutual respect, friendliness and cooperation is one of the many rewarding scientific and diplomatic results of medical research in Taiwan and Egypt.

**ON THE ROAD** — A NAMRU-2 field team returning from a collecting and testing trip makes a routine rest stop.



**W**E SUSPECT the founders of the Navy Bean Soup Contest didn't know what they had wrought when they began the whole thing. From all reports, it appears to be getting out of hand. For one thing, third place in the 1959 contest was won by the Army Engineers. Now the whole noble enterprise is threatened by an Army sergeant and others whose antecedents and qualifications are, to say the least, suspect.

It is noted that the sergeant has tried to snow the judges by overwhelming them with a five-page recipe, freely interspersed with irrelevant comment and gratuitous self-advertising. It is further noted that he tried to influence the judges' strictly impartial decisions by closing with the tale of how the sergeant once gave a sip of his own special bean soup to a Spanish-American War veteran, who "immediately threw away his cane and allowed as how San Juan Hill sure looked a lot flatter now."

But at least the good sergeant, who shall be nameless, has *some* pretensions to respectability. He holds a commission from a former governor as an admiral in the Nebraska Navy.

\* \* \*

But what can we say of those others who are trying to horn in on a fine old and, we had assumed, exclusive Navy tradition? There is the Navy civil-servant—and a female, at that—who titled her entry "Kelly Bean Soup," combining use of her maiden name and that of a food-processing company which has agreed to can the winning—ah, concoction.

There is a rumor, unconfirmed, we are happy to say, that one of the larger naval installations has gone to the unethical extent of running its recipe through an electronic computer before submission. Where, we repeat, is this thing going to stop?

\* \* \*

And the titles! Consider, if you will: "Campfire Bean Soup" (who ever heard of a campfire aboard ship?), "Easy Dinner Bean Soup" (an *easy* bean soup? Never!), "Bean Soup a la Espanol" (with tomatoes, we presume. Big deal), "Romano Bean Soup" (well . . .), "Thick Bean Soup" (nonsense. All good bean soups are thick), "Show me Bean Soup" (??), "Navy Mine-strone Soup" (gentlemen, this is a *bean* soup contest. Remember?), "VIP Buffet Bean Soup" (what are you trying to do, Mac? Make points?), "Flagship Special" (hey, how about us little guys?), and "Epicure Bean Soup" (aren't they all?).

However, we are happy to note that the Fleet is mentioned in passing in the swarms of publicity releases concerning the contest. It is even admitted that it holds a slight edge on the infantry and artillery, with entries coming from submarines, radar picket ships, minesweepers and even civilian-manned ships of MSTs, not to overlook an aircraft carrier converted to an amphibious assault ship.

Get in there and fight, men!

\* \* \*

Sorry. We became so carried away at the thought that a sister service (which, of course, we respect and deeply admire) might carry away top honors, in an area which the Navy claims as its very own, that we overlooked the fact that by the time you read this the contest will be over.

We can but hope.

*The All Hands Staff*

## The United States Navy

### Guardian of our Country

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

It is upon the maintenance of this control that our country's glorious future depends. The United States Navy exists to make it so.

### We Serve with Honor

Tradition, valor and victory are the Navy's heritage from the past. To these may be added dedication, discipline and vigilance as the watchwords of the present and future. At home or on distant stations, we serve with pride, confident in the respect of our country, our shipmates, and our families. Our responsibilities sober us; our adversities strengthen us.

Service to God and Country is our special privilege. We serve with honor.

### The Future of the Navy

The Navy will always employ new weapons, new techniques and greater power to protect and defend the United States on the sea, under the sea, and in the air.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war. Mobility, surprise, dispersal and offensive power are the keystones of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past. Never have our opportunities and our responsibilities been greater.

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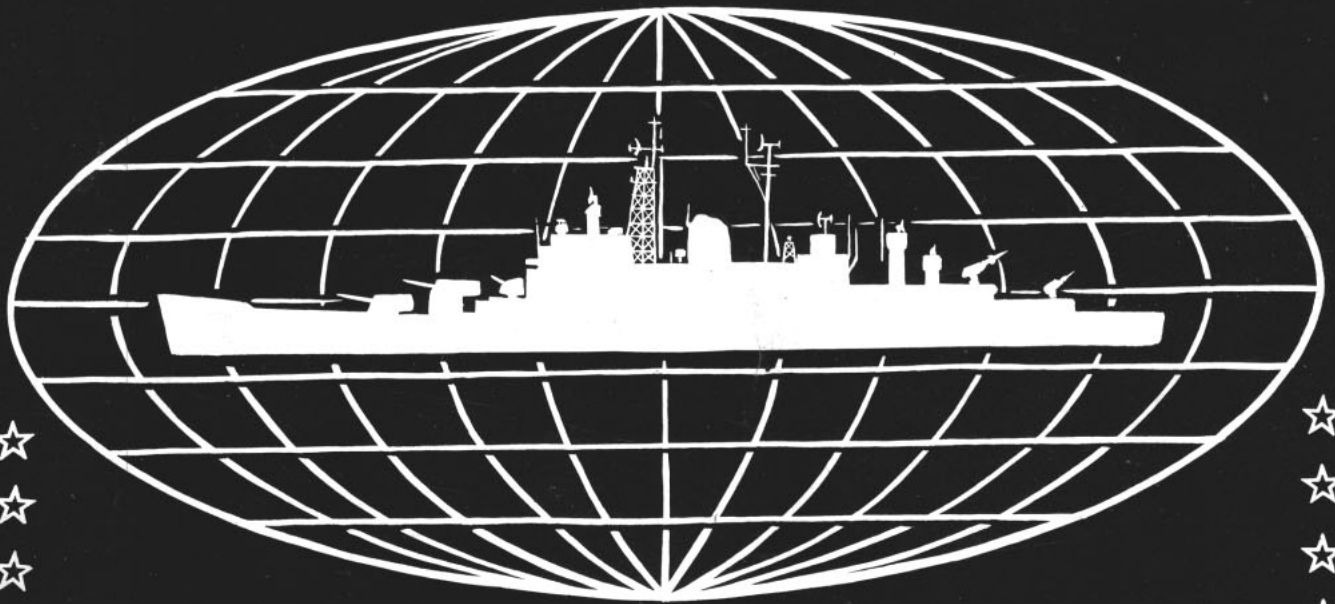
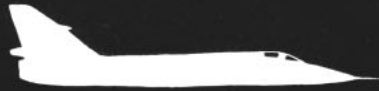
● AT RIGHT: FAST OPERATOR FAST — J. G. Fast, BM3, on board the guided missile cruiser USS Little Rock (CLG 4) handles the control levers of FAST (Fast Automatic Shuttle and Transfer) system, Navy's latest device designed to minimize underway replenishment time.

**ALL HANDS**





**UNITED STATES NAVY**



**ON**

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